

From: O'Halloran, Neil J <O'HALLORANN@coned.com>
Sent: Friday, January 31, 2020 11:50 AM
To: Spellman, John (DEC)
Cc: Massaro, Craig J
Subject: Final Site Management Plan, Con Edison Echo Ave Site; NYSDEC Site Number: 3-60-016
Attachments: Echo Avenue SMP Transmittal Ltr Jan 31 2020.pdf; ECHO_AVENUE_Site Management Plan_2015_Final_8.4.19_FINAL_w_Appendix.pdf

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Mr. Spellman,

As discussed today, attached please find the Final Site Management Plan and transmittal letter for Con Edison's Echo Avenue Site located in New Rochelle, NY. Please send the NYSDEC approval correspondence regarding the SMP to me directly.

For other inquiries regarding this site going forward, please contact Mr. Craig Massaro of my staff who is the project manager. He is copied on this e-mail and his contact information is provided below.

Mr. Craig Massaro
Project Manager / Senior Scientist
EH&S Remediation Programs and Legacy Sites
Con Edison of NY, Inc.
31-01 20th Avenue, Building 136
Astoria, NY 11105

(718) 204-4140 [O]
(646) 276-6607 [M]

Thank you,

Neil

Neil O'Halloran, P.G.
Section Manager
EH&S Remediation Programs and Legacy Sites
Con Edison of NY, Inc.
31-01 20th Avenue, Building 136
Astoria, NY 11105

(718) 204-4145 [O]
(646) 533-8821 [M]



Consolidated Edison Company
of New York, Inc.
31-01 20th Avenue
Long Island City NY 11105-2048
www.conEd.com

January 31, 2020

VIA ELECTRONIC MAIL

John Spellman
New York Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY

**Re: Site Management Plan - Final
NYSDEC Site Number: 3-60-016
78 Echo Avenue Superfund Site
New Rochelle, Westchester County, New York**

Dear Mr. Spellman:

Enclosed for your records is the final Site Management Plan (SMP) for Con Edison's Echo Avenue Site, located in New Rochelle, New York (NYSDEC Site Number: 3-60-016). The site was remediated in accordance with the Order on Consent Index# W3-05131-9 I-02. The SMP was originally prepared by Con Edison's former environmental consultant HDR, and has since been revised by our current environmental consultant Weston Solutions, Inc. This final version incorporates all modifications noted in the NYSED June 21, 2019 letter to Con Edison.

Please note that a copy of the attached Final SMP has been placed in the public repository at the New Rochelle Public Library, 1 Library Plaza, New Rochelle, NY 10801.

Please review and provide approval of the attached SMP at your earliest convenience.

Sincerely,

Neil J. O'Halloran, P.G.
Section Manager
EH&S Remediation

w/att.

cc: C. Massaro (Con Edison)
Project File

Echo Avenue

NEW ROCHELLE, WESTCHESTER COUNTY, NEW YORK

Site Management Plan

NYSDEC Site Number: 3-60-016

Prepared for:

Consolidated Edison Company of New York, Inc.

31-01 20th Avenue, Astoria, New York 11105

Edited by:

Weston Solutions of New York, Inc.

205 Campus Drive, Edison, New Jersey 08837

(732) 417-5873

AUGUST 2019

CERTIFICATION STATEMENT

I, certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

MDH
12/13/19



Joseph R. Dietrich, P.E.

P.E. No. 086898-1

December 13, 2019 DATE

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LIST OF ACRONYMS AND ABBREVIATIONS

The Site	Con Edison Echo Avenue Site
NYSDEC	New York State Department of Environmental Protection
The Order	Order on Consent
Con Edison	Consolidated Edison Company of New York, Inc.
IRMs	Interim Remedial Measures
SMP	Site Management Plan
Declaration	Declaration of Covenants and Restrictions
HDR	Henningson, Durham and Richardson Architecture and Engineering PC
ICs	Institutional Controls
ECs	Engineering Controls
The Registry	New York State Registry of Inactive Hazardous Waste Disposal Sites
LMS	Lawler, Matusky and Skelly Engineers LLP
PCBs	Polychlorinated Biphenyls
PAHs	Polycyclic Aromatic Hydrocarbons
TCL	Target Compound List
TAL	Target Analyte List
EPA	Environmental Protection Agency
TAGM	Technical Administrative and Guidance Document
SCOs	Soil Cleanup Objectives
VOCs	Volatile Organic Compounds
SVOCs	Semi-Volatile Organic Compounds
TCLP	Toxicity Characteristics Leachate Procedure
Bgs	below grade surface
EP	Excavation Plan
HASP	Health and Safety Plan
CAMP	Community Air Monitoring Plan
C & D	Construction and Demolition

LIST OF ACRONYMS AND ABBREVIATIONS

(Continued)

NYCRR	New York Code of Rules and Regulations
DER	Division of Environmental Remediation
SWPPP	Storm Water Pollution Prevention Program
OCP	Order Control Plan
NYSDOH	New York State Department of Health
CP	Commissioner Policy
PFAS	Per and Polyfluoroalkyl Substances

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program for a portion of the Consolidated Edison Echo Avenue site (the “Site”) under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (“NYSDEC”). The Site was remediated in accordance with Order on Consent Index # W3-05131-91-02 (the “Order”), Site #3-60-016, which was executed on June 15, 1992.

1.1.1 General

Consolidated Edison Company of New York, Inc. (“Con Edison”) entered into the Order on Consent with NYSDEC to conduct an NYSDEC-approved Phase II Investigation of the Site -- the approximately 2.57-acre grounds of a former electric distribution substation that Con Edison operated and a former electric generating station that Con Edison’s predecessor company, the Westchester Lighting Company, operated at 78 Echo Avenue the City of New Rochelle, Westchester County, New York (see Figure 1). The Site has been sectioned into two parcels: the area of a former electric distribution substation area (the “Western Parcel”); and the eastern section of the Site that contains the former electric generating station together with the eastern-most section of the Site that was previously submerged land owned by the State of New York (collectively, the “Eastern Parcel”). The Western Parcel is 0.80 acres and the Eastern Parcel is 1.77 acres as shown on the Metes & Bounds drawing in Appendix A. The Order also allowed Con Edison to propose and, if approved by NYSDEC, to implement Interim Remedial Measures (“IRMs”) for the Site on an as-needed basis. A map showing the location and boundaries of the Site is provided in Appendix A as Figure 1 attached hereto. The boundaries of the Site are also fully described in the metes and bounds description of Schedule A that accompanies the NYSDEC-approved Declaration of Covenants and Restrictions for the Site, attached hereto as Appendix B.

After completion of the NYSDEC-approved IRMs described in the Echo Avenue Site Remedial Cleanup Summary Report, dated September 2008, residual contamination remains in the subsurface of the Eastern Parcel. This Site Management Plan (SMP) outlines the activities and controls required in order to effectively and safely manage the residual contamination that remains in soil and groundwater on the Eastern Parcel only in perpetuity or until extinguishment of the Declaration of Covenants and Restrictions (the “Declaration”) (Appendix B). Implementation of the NYSDEC-approved IRMs for the Site was completed in April 2004. All reports associated with the Site shall be maintained within a repository that will be established by Con Edison. In addition, all reports can also be viewed by contacting NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Henningson, Durham and Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. (collectively, “HDR”), on behalf of Con Edison, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (“ICs”) and Engineering Controls (“ECs”) that are required as part of NYSDEC’s remedy for the Site and the Declaration. This SMP was updated by Weston Solutions of New York, Inc. for submission to the NYSDEC in accordance with the requirements of 6 NYCRR Part 375 and the existing Consent Order for the project site.

1.1.2 Purpose

The Eastern Parcel contains subsurface residual contamination after completion of the NYSDEC-approved IRMs. Engineering Controls have been incorporated into the Site remedy to provide proper management of the remaining contamination on the Eastern Parcel in the future to ensure protection of public health and the environment. The Declaration will be recorded with the Westchester County Clerk and provides an enforceable legal instrument to ensure compliance with this SMP and all ECs and ICs placed on the Eastern Parcel. The ICs place restrictions on site use and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required

by the Declaration for contamination that remains on the Eastern Parcel. This plan has been approved by NYSDEC, and compliance with this plan is required by the grantor of the Declaration and the grantor's successors and assigns. This SMP may only be revised with the approval of NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination on the Eastern Parcel, including: (i) implementation and management of all ECs and ICs; (ii) media monitoring; and (iii) performance of periodic inspections, certification of results and submittal of Periodic Review Reports.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of ECs and ICs, which includes a reporting plan for the submittal of data, information, recommendations and certifications to NYSDEC; (2) a Monitoring Plan for implementation of Site Monitoring; and (3) an Operation and Maintenance Plan.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Declaration. Failure to properly implement the SMP is a violation of New York Environmental Conservation Law and the Declaration, which is grounds for revocation of the Release and Limited Covenant Not to Sue issued by NYSDEC pursuant to the Order;
- Failure to comply with this SMP is also a violation of 6 NYCRR Part 375 and the Order on Consent, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this SMP will be proposed in writing to NYSDEC's project manager. In accordance with the Declaration, NYSDEC will provide a notice of any approved changes to this SMP and will append such notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

Con Edison has owned the Western Parcel and a majority of the Eastern Parcel since 1951, when it acquired this property as a result of its merger with the Westchester

Lighting Company, the original property owner and operator. See Figure 1 for the locations of the Western and the Eastern Parcels within the Site. It was determined in 2010 that the eastern-most portion of the Eastern Parcel was previously submerged land owned by the State of New York. Con Edison acquired the property in 1951. The Western Parcel was operated by Con Edison as an electrical distribution substation until the substation facility was retired in 1981 and demolished. From 1984 until 1987, Con Edison sampled and conducted various cleanup activities on the Site. In January 1988, NYSDEC listed the Site on the New York State Registry of Inactive Hazardous Waste Disposal Sites (the “Registry”) as a Class 2A site. At that time, NYSDEC assigned Class 2A classifications to sites for which insufficient information existed to be able to include the sites in another Registry classification. NYSDEC requested that Con Edison conduct a Phase II investigation of the Site in order to obtain sufficient information and data to either reclassify the Site on the Registry or to delist it. On June 15, 1992, Con Edison entered into the Order to conduct an NYSDEC-approved Phase II investigation for the Site. The Order also authorized Con Edison to propose, and if approved by the NYSDEC, to implement IRMs to clean up the Site.

However, because the revised regulations promulgated by NYSDEC in December 2006 do not include a 2A classification for Registry sites and NYSDEC and the New York State Department of Health (“NYSDOH”) no longer consider the Site to present an imminent or significant risk of harm to human health and the environment due to Con Edison’s successful implementation of the IRMs, the Site is currently not listed on the Registry. Instead, NYSDEC now classifies the Site as a “P” site, a designation for certain sites that have not been closed out, but that are outside of the New York State Superfund program. Therefore, NYSDEC has advised Con Edison that there will be no need to formally petition NYSDEC to reclassify or delist the Site from the Registry.

1.2.1 Site Location and Description

The Site is located in the City of New Rochelle, County of Westchester, New York and is identified as Section 1, Block 84, and Lot 73 on the Tax Map of the City of New Rochelle. The entire Site is a 2.57 acre area bounded by Echo Bay to the north and east, residential properties to the south, residential properties to the east, Echo Avenue to the southwest, and by a landscaping company (formerly a Sentinel Fuel Oil Company

terminal) to the northwest (see Figure 1). The boundaries of the Site are more fully described in the metes and bounds description contained in the Declaration of Covenants and Restriction attached hereto as Appendix B. The Western Parcel of the site is 0.80 acres and the Eastern Parcel is 1.77 acres. This SMP only applies to the Eastern Parcel portion of the Site.

1.2.2 Site History

See Section 1.2.1 for information regarding Con Edison's ownership and use of the Site. Con Edison retained the services of HDR [formerly Lawler, Matusky & Skelly Engineers LLP ("LMS")] in 1992 to prepare a work plan for the Phase II investigation as required by the Order. At the time, the Site contained an electrical substation building consisting of a north and south hall, an office building, and a slab and substructure in the Site's outdoor electric transformer yard (see Figure 2). During the period from 1992 through 1996, HDR conducted various sampling activities at the Site in accordance with NYSDEC-approved work plans as part of the Phase II investigation for the Site.

In July and August 1995, Con Edison demolished the substation building on the Site down to the building's basement floor slab, backfilled the building's basement with building demolition rubble (after collection and analysis of concrete chip samples), demolished the office building on the Site and removed the superstructure of the site's transformer yard.

1.2.3 Geologic Conditions

1.2.3.1 Bedrock

The bedrock underlying the Site is identified in published works as biotite garnet schist interbedded with feldspar garnet gneiss. These are moderately high-grade metamorphic rocks formed under great pressure and heat, occurring throughout Manhattan, the Bronx, Westchester and southeastern Connecticut (see Figure 3). They are members of the Hartland Formation, one of a series of parallel, northeast-trending belts of metamorphic rocks formed during the late Cambrian to mid-Ordovician periods (510-460 million years ago).

Locally, rocks are commonly broken by faults trending northwest that originated as thrust faults during continental merging. The surface of the bedrock underlying the Site slopes downward to the northeast, becoming progressively deeper in this direction and underlying Echo Bay and its sediments (see Figures 4 and 5).

1.2.3.2 Unconsolidated Deposits

Unconsolidated sediments in Westchester County are glacial in origin, emplaced by retreating Pleistocene age ice sheets (approximately 11,000 years ago) in the form of till and stratified drift. The glacial material was derived from regional and local bedrock (gneiss, schist, amphibolite and granite), which was plucked up, pulverized, transported and redeposited by the overlying ice sheets.

Stratified drift (sorted and layered glacial sediment) is located in the lower-lying areas throughout the county. Originally deposited as till (unsorted, structureless glacial sediment), it was reworked into stratified deposits by running water that concentrated in low-lying areas. Till covers the bedrock at higher elevations and where no glacial material is present, bedrock is exposed. Thickness of the sediment cover varies from 0 to over 100 feet.

The overburden on the Site varies from approximately four to 18 feet in thickness and is composed chiefly of well-sorted sand and silt with lesser amounts of clay, gravel and cobbles (see Figure 5). These natural constituents are mixed with black and colorful ash fill in some areas.

1.2.3.3 Hydrogeology

The groundwater elevations at the Echo Avenue Site are influenced by the fluctuations of tidal surface water in Echo Bay. Figures 6 through 9 show the groundwater table contours for the falling tide, low tide, rising tide and high tide, respectively, for the Site. The results indicate that the tidal influences are localized with largest fluctuations observed in wells EAMW-4 and EAMW-5, which were located 30 – 40 feet from Echo Bay. Groundwater levels in these wells typically fluctuated up to approximately six (6) feet between various tidal phases. The groundwater generally flows from southwest to northeast towards Echo Bay.

1.3 SUMMARY OF PHASE II INVESTIGATION FINDINGS

A Phase II Investigation was performed in accordance with the Order to characterize the nature and extent of the contamination at the Site. The results of the Phase II Investigation are described in detail in the following reports:

- Phase II Investigation at Echo Avenue Site – February 1993
- Report on Sampling Required in Revised Addendum No. 2 Final Work Plan – April 1996.
- Second Report on Sampling Required in Revised Addendum No. 2 Final Work Plan – April 1996.
- Report on Sampling Required in Revised Addendum No. 3 Final Work Plan – April 1996.

Generally, the Phase II investigation results indicated that several areas on the Site contained polychlorinated biphenyls (“PCBs”) in soils above site-specific cleanup criteria. The initial Phase II investigation for the Site was conducted by HDR during 1992, and a report entitled *Phase II Investigation at Echo Avenue Site* (the “Phase II Report”) was prepared in February 1993. The report included the results of the sampling and remediation that Con Edison had conducted at the Site between 1984 and 1987, and the sampling results of the 1992 Phase II investigation.

Below is a summary of site conditions when the Phase II Investigation was performed from 1992 to 1996.

1.3.1 Soil

The following summarizes the relevant findings and conclusions of the Site’s Phase II Investigation conducted in 1992 on the Site soils:

- On-Site soils were found to contain low concentrations of Polycyclic Aromatic Hydrocarbons (“PAHs”), naphthalene, chlorinated pesticides, lead, mercury, antimony, arsenic, copper, cadmium and zinc. HDR concluded that the PAH contamination was most likely associated with coal tars, asphalt and fuel products, the naphthalene and lead contamination was probably

associated with diesel fuel or other fuels, and the pesticides found were most likely a result of their use for termite and other insect control. The metals appeared to be surficial contamination and possibly attributable to fill materials used at the Site or other Site activities. Tables 1 and 2 summarize the soil data from samples taken during the Phase II Investigation that were analyzed for the full target compound list (“TCL”) and target analyte list (“TAL”).

- PCBs were detected in soil at low concentrations throughout the Site. With one exception, PCB concentrations in soil generally ranged from less than 1 mg/kg to less than 10 mg/kg. PCBs at a concentration of greater than 10 mg/kg were found in soil samples collected from one location. With this one exception, all soil samples were found to contain PCB concentrations less than the United States Environmental Protection Agency’s (“EPA”) PCB Spill Clean-up Level of 10 mg/kg for restricted access facilities, which was the only clean-up criteria available at the time of the Site’s Phase II Investigation.

The following summarizes the findings of the Phase II additional investigations conducted for Site soils in 1995:

- PCBs were detected above 1 mg/kg at four areas on the site. At one location the sample was analyzed for the TCL and TAL; the sample contained low levels of PAHs, naphthalene and like substances, chlorinated pesticides, and elevated levels of arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, thallium and zinc (see Table 3).

1.3.2 On-Site and Off-Site Groundwater

Six monitoring wells were installed on the Site and sampled twice as part of the Phase II investigation. No off-site wells were sampled as part of this investigation. See Figure 4 for the location of the on-Site monitoring wells; Table 4 provides the results of the groundwater data collected as part of the Phase II Investigation. Below are the conclusions of the groundwater sampling conducted in 1992:

- PCBs were not detected in groundwater. However, arsenic, cadmium, chromium, iron, manganese, magnesium and sodium were present in groundwater samples from the Site at concentrations that exceeded NYSDEC Class GA groundwater standards. Beryllium was present at concentrations that exceeded its NYSDEC guidance value. The arsenic, beryllium, cadmium, chromium, iron and manganese exceedances were believed to be attributable to particulate matter suspended in the groundwater samples. The elevated magnesium and sodium levels were believed to be attributable to salt water intrusion from the adjacent Echo Bay.

1.3.3 On-Site and Off-Site Soil Vapor

Soil vapor sampling was not performed as part of the NYSDEC-approved Phase II investigation for the Site. Based on the historical use of the Site and the volatile organic compound (“VOC”) data from soils collected at the Site, vapors were not a Site concern.

1.3.4 Underground Structures

Various underground structures existed on the Site during the implementation of the Phase II investigation; most of these structures were removed during the implementation of the Site IRMs. The known structures that remain on Site are detailed below (see Figure 10):

- Former substation building basement and basement storage room. In 1995 these rooms were backfilled with construction debris and rubble from the floors above them. Figure 11 shows the locations and concentrations of PCBs from concrete core samples taken from the basement and basement storage room prior to backfilling.
- Former substation building sub-slab structures. The former South Hall contains two deep concrete structures that were sampled and found to contain no PCBs. The former North Hall contains a tunnel and two deep concrete structures that were sampled and found to contain no PCBs. The cindery fill material present in the North Hall tunnel was removed from the tunnel and the

tunnel was backfilled in 2000. Figure 12 shows the data and locations of these structures. In addition, samples of the rubble contained in the North and South Halls were sampled and contained no PCBs. The rubble was placed back where it came from prior to backfilling. Sample locations are shown on Figure 13.

- Tunnel between former substation and office buildings. The tunnel was cleaned and backfilled in 1998. See Figure 10 for location.
- Office building foundation wall. The office building's foundation slab was removed in 1995, but the foundation walls were left in place. Reports for prior work conducted at the Site by Con Edison indicate that there was an extension on the eastern end of the office building. Consequently, the foundation walls may extend out further than shown on Con Edison's available drawings for the office building. Figure 10 provides the locations of the underground structures remaining in place.
- EASP-06. This sump, located just outside the east end of the Southern Hall was sampled in November 1996. Soil from EASP-06 contained 0.06 mg/kg PCBs and did not require remediation; it was backfilled for safety reasons in 1998.
- CB-04 and CB-06. Catch basin CB-04 is located in the center of the former South Hall. Catch basin CB-06 is located along the north side of the former North Hall slab in the northeast corner area. A concrete meter vault is located along the outside of the foundation wall in the northwest corner area of the North Hall. These structures were not removed during the building slab removal conducted in 1999; however, samples of the concrete were collected and analyzed for PCBs. See Figure 14 for CB-04 data and sample locations. Note that CB-13 shown on this figure was later removed in 2002. Figure 15 shows the location and sample data from CB-06.
- Concrete drainpipe from the former CB-13 location and the tile drainpipe along Echo Bay. See Figures 10 and 15 for the location of these structures.
- Four concrete pedestals in the area immediately adjacent to the backyard of

the neighboring V. Lockwood residential property (see Figure 10). An historical fire insurance map from 1931 that shows the Site when it was a coal-fired generating plant indicates that a 50,000 gal water tank was present at this location. This map also shows a number of other areas where there could still be some structures below grade that were not encountered during the environmental investigations and remediation activities conducted at the site.

- The duct banks between the manholes on Echo Avenue and the concrete retaining wall on the western end of the Site were not removed. The duct banks were cleaned and plugged on both ends and manhole MH-4 was completely filled with concrete (see Figure 10).

1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the NYSDEC-approved Additional Sampling and Remediation Work Plan dated July 1996, prepared by HDR and the following additional remedial work plans:

- Sampling/Remedial Work Plan for Transformer Yard Slab and Substation Building Slab, dated May 1998, prepared by HDR.
- Additional Remediation Work Plan for Transformer Yard of Con Edison's Echo Avenue Site, dated June 2001, prepared by HDR.
- Remediation Proposal for Fuel-Oil Contaminated Soil in Con Edison's Echo Avenue Site Transformer Yard, dated October 2001, prepared by HDR.
- Additional On-Site Work, dated October 2002, prepared by HDR.

The following is a summary of the Remedial Actions performed at the Site from 1997 to 2003:

- All known on-site soils with total PCB concentrations of >1.0 mg/kg in the top two feet and known on-site soils with total PCB concentrations of >10.0 mg/kg below 2 feet in depth were removed and the areas backfilled with clean fill. The cleanup objectives are specified in NYSDEC's Commissioner Policy 51: Soil Cleanup Guidance, dated October 21, 2010 (CP-51).

- All known structures with the exception of those listed above in Section 1.3.4 were excavated and removed from the Site. These structures include the transformer yard slab, manholes, pedestals and duct banks; the substation building slab and most of the catch basins; the cable vault and duct banks between the cable vault and transformer yard and duct banks between the cable vault and tunnel; and two aboveground pits and five sumps.
- In addition to the structures removed in the transformer yard, the transformer yard was excavated to a total depth of six feet below grade and backfilled with clean fill.
- Fuel-oil contaminated soil found in the northwest corner of the transformer yard was removed and the area was lined with CCW MiraClay, a bentonite-impregnated polypropylene sheeting, and then backfilled with clean fill.
- The on-site monitoring wells that were in good condition were sampled after the remediation was completed. These wells and any other wells on Site were abandoned in January 2003 in accordance with the NYSDEC guidance document entitled Decommissioning Procedures NPL Site Monitoring Well Decommissioning, dated May 1995 (revised October 1996).

Remedial activities were completed at the Site in May 2003.

1.4.1 Removal of Contaminated Materials from the Site

The soil cleanup objectives specified in CP-51 were used for the majority of the remedial work conducted on the Site. For fuel-oil contaminated soils in the northwest corner of the transformer yard, the NYSDEC Recommended Soil Cleanup Objectives for Fuel Oil Contaminated Soil (August 2001), were used in addition to CP-51 cleanup objectives.

Figure 16 summarizes the overall remediation conducted at the Site from 1997 to 2003. The figure also shows additional remediation that was conducted off-site of the property. All PCB-contaminated soils and certain structures were removed from the Site. A list of the soil cleanup objectives (“SCOs”) for this project is shown in Table 5.

1.4.2 Quality of Backfill Placed in Excavated Areas

All excavations on-site that were backfilled from 1997 to 2000 were backfilled with certified clean fill. If the excavation was deep, the excavation was partially filled with clean stone to ensure proper compaction.

In 2002, after the fuel oil spill area in the northwest corner of the transformer yard was excavated, the area was lined with CCW MiraClay, a bentonite-impregnated polypropylene sheeting, and then backfilled with clean certified fill.

Excavations conducted from 2002 to 2003 were backfilled with clean fill and covered with topsoil. The analytical results of the backfill and topsoil used from 2002 to 2003 are contained in Tables 6 and 7 for backfill and Table 8 for topsoil.

1.4.3 On-Site and Off-Site Treatment Systems

No long-term treatment systems were required as part of the Eastern Parcel remedy.

1.4.4 Remaining Contamination

This Section summarizes the levels of contamination remaining at various locations on the Site. The discussion has been subdivided into soil contaminant levels on site and groundwater contaminant levels on-site. Where appropriate, figures showing the final confirmatory contaminant levels have been provided.

1.4.4.1 Soil

The following sections describe the contaminant levels remaining in soil on-site. Figures are provided that show the confirmatory sample analyses after remediation was completed or where investigations determined that no contamination existed.

As stated previously, remediation for PCBs was conducted on-site to meet the CP-51 recommended soil cleanup objectives of 1 mg/kg PCBs for soils less than or equal to two feet deep and 10 mg/kg PCBs for soils greater than two feet deep. Subsequently, NYSDEC issued Part 375 soil cleanup objectives with restricted residential criteria for PCBs of 1 mg/kg or less for soils of any depth and an unrestricted residential criteria for PCBs of 0.1 mg/kg or less for soils of any depth in December 2006. In October 2010,

NYSDEC issued CP-51 soil cleanup objectives that maintained the previously stated TAGM 4046 cleanup standards of 1 mg/kg PCBs for surface soils and 10 mg/kg PCBs for subsurface soils. The CP-51 document replaces the TAGM 4046 soil cleanup objectives that were used as guidance for remediation activities at the Site. In June 2009, NYSDEC divided the Site into two sections with the southwestern section (in this report referred to as the Western Parcel) meeting unrestricted use criteria (the area of the transformer yard that was excavated to a depth of six feet) and the Eastern Parcel encompassing the remaining portion of the Site meeting restricted residential use criteria (see Table 5 for these criteria). A Decision Document pertaining to the division of the Site into two parcels was prepared by NYSDEC in November 2009 and is included in Appendix B with the Declaration.

1.4.4.1.1 On-Site Soils - Unrestricted Use

As part of the Phase II investigation conducted on the Site in 1992, shallow soil samples were collected and analyzed for PCBs in the elevated section of the Site between Echo Avenue and the transformer yard. Figure 17 shows the locations and results of these samples (EASWSS-1 to -8); this area was not remediated, however all samples in this area meet the unrestricted use PCB criteria of 0.1 mg/kg.

With the exception of the northwest corner of the transformer yard, all structures and soil were removed down to a depth of six feet below grade. Samples were collected and analyzed for PCBs after the excavation was completed; the results are shown in Figure 18. With the exception of one side wall sample (FC-W4A) in the northwestern portion of the transformer yard and one floor sample collected from the east wall, both taken from a depth greater than two feet, all samples in the Western Parcel met the unrestricted use PCB criteria of 0.1 mg/kg. Three wall samples (FC-W6, FC-W7, and FC-W7A), collected from the eastern end wall that is in the Eastern Parcel (restricted residential use) contained PCB results above 0.1 mg/kg and less than 1.0 mg/kg. Both areas were backfilled with clean certified backfill, covered with polyethylene mesh sheeting, covered with top soil, and planted with a field grass mix to prevent erosion.

The northwestern corner of the transformer yard was remediated in 2002 after oil was discovered leaking through the wall from the adjacent property. Wall and floor

samples were collected and analyzed for volatile organic compounds (“VOCs”) and semi-volatile organic compounds (“SVOCs”) after the excavation was completed (see Figure 19 for sample locations). The results are provided on Table 9. The NYSDEC Recommended Soil Cleanup Objectives for Fuel Oil Contaminated Soil were used as the cleanup objective for this area. In cases where applicable standards were not published, the cleanup objectives in CP-51 guidance document were used. None of the data exceeded the cleanup criteria. For comparison purposes the soil cleanup objectives for unrestricted use have been added to the table. With the exception of acetone, all data meets the Part 375 soil cleanup objectives. The acetone concentration of 0.064 mg/kg in the Fl-2 sample exceeds the value of 0.05 mg/kg for unrestricted use (see Figure 19 for location). Once the excavation was completed the area was lined with bentonite-impregnated sheeting material before backfilling in May 2003.

1.4.4.1.2 On-Site Soils - Restricted Residential Use

This section discusses the in-place contamination located within the Eastern Parcel (Restricted Residential Use). Three samples were collected in 1992 for analysis of TCL SVOCs, TAL metals, pesticides and PCBs (Table 1). Three additional samples were collected and analyzed for PCBs (See Figure 20 for sample locations and PCB data). The area around sample location EADEC-E and EADEC-F was excavated to depths ranging between one and two feet. End point samples were collected and analyzed for PCBs. One sample (E-A-25) was analyzed for TCL organics and inorganics (Table 10). None of the samples exceed the Part 375 restricted residential SCOs (Figure 21, illustrates the location and results). It is unknown if residual metals and SVOCs remain in place as they were, for the most part, not included in end point sampling analysis.

Additional excavations occurred in the area of the EASESS-3 boring location (and also in the area of the EADEC-A) to address PCB impacts to soils. Figure 22 shows the 16 endpoint samples from this excavation area that were found to have PCB in soils greater than 1 mg/kg which exceed the current Part 375 restricted residential use SCOs. The excavations at EADEC-E/-F and EASESS-3 were backfilled with certified clean fill following remediation. No remediation occurred at locations EADEC-B, -C and -D. At these locations the PCB concentrations are all less than 1 mg/kg. However, some metal

contamination remains that exceeds the restricted residential use criteria. This includes arsenic and mercury at EADEC-D.

Soil data (see Table 2) collected during the installation of EAMW-6 (see Figure 4) indicated SVOCs, primarily PAHs, were present. The impacts appear to be associated with the upper two feet of soil. SVOCs detected in this area were removed during the removal and excavation of the cable vault drain pipe. However, it is not known if additional SVOC contamination exists in the area outside of the former well location. Subsequently, monitoring well EAMW-6 was removed during remedial activities.

Following removal of the cable vault drain pipe, end point samples were collected. The results at one sample location (CVPD-02) indicated PAH contamination remained in place. At the request of NYSDEC, the excavation was deepened and widened and additional samples (see Figures 23 and 24) were collected and analyzed for SVOCs only (see Table 11). The data indicate the presence of several PAHs along the excavation wall at concentrations above the Part 375 restricted residential SCO at a depth of 6 – 9 feet below grade. The excavation was backfilled with certified clean fill after NYSDEC reviewed the data.

A rusty cindery material was encountered in an excavation near the former intake and discharge tunnels (see Figure 25). Samples were collected for analysis of the full toxicity characteristics (TCLP). Results indicated soil contaminate levels were well below hazardous waste parameters. Additional sample results collected from this material for metals and PCBs indicated that PCBs in this sample from 3-4 feet below grade were above 1 mg/kg.

The results of a sample collected as part of the remediation conducted on the Site adjacent to the Lockwood property (see Figure 26) indicated residual impacts of metals and SVOCs (Table 13); however, all detected SVOC and metals concentrations are below the current Part 375 restricted residential use criteria. Additional pits dug around the area showed no evidence of oily soil. Upon NYSDEC review, the excavation was backfilled with certified clean fill.

As part of the Phase II investigation shallow soil borings were advanced along the southern edge of the property and samples were collected at four depths and analyzed for

PCBs (Figure 27). With the exception of EASSSE-3 and EASESS-7, none of the sample results indicated PCB levels that exceed Part 375 restricted residential use SCOs. Both areas were remediated in 1998. The excavation at EASESS-7 extended onto the adjacent Treffeisen property. Concrete samples were collected from the former office building foundation wall on the northwest side of the excavation. The concrete results show PCB concentrations below 1 mg/kg (see Figure 28). Ten endpoint samples from this excavation were found to have PCB in soils greater than 1 mg/kg (see Figure 29) which exceed the current Part 375 restricted residential use SCOs. These ten sample locations are within the Site property fence line. These samples were all collected at depths greater than two feet below grade and met the CP-51 guidance value of less than 10 mg/kg PCBs in use at that time. These areas were backfilled with certified clean fill. At the Treffeisen property, the excavated area was backfilled and also landscaped with sod and bushes.

As mentioned previously, the excavation area at EASESS-3 along the southeast side of the property contained 16 endpoint samples that were found to have PCB in soils greater than 1 mg/kg (see Figure 22) which exceed the current Part 375 restricted residential use SCOs.

Sample results from the 0-2 foot interval in boring (B-3), advanced in 1994, revealed a PCB concentration of 2.2 mg/kg. This area, identified as B-3, was excavated in 1997-1998 (see Figure 30). An endpoint floor sample result collected in the excavation at a depth of greater than 2 feet had a PCB concentration of 1.2 mg/kg which exceeds the current Part 375 restricted residential use SCOs. The excavation was backfilled with certified clean fill.

During the initial sampling conducted on the Lockwood property adjacent to the Site, a PCB concentration of 1.09 mg/kg was detected in a shallow soil sample. During soil excavation activities the excavation area extended onto the Site property where a majority of the excavation occurred for this area including some deeper excavation down to eight feet in the center area along the property fence line. As shown in Figure 31, eighteen of the endpoint samples collected 2 feet (or more) below grade had PCB concentrations above 1 mg/kg. All of the sample locations above 1 mg/kg are on the Site

property. The excavation was backfilled with certified clean fill. The V. Lockwood portion of the excavation was also landscaped upon completion.

The substation building was demolished down to the building's basement floor slab by Con Edison in 1995. Prior to demolition, the basement area, at the western end of the building, was dewatered and concrete chip samples were collected from the basement and basement storage area (see Figure 11). NYSDEC determined that the area did not require additional remediation and authorized Con Edison to proceed with backfilling the basement with debris from the building demolition.

The substation slab (South Hall and North Hall) was removed as part of the 1999-2000 remediation. Eight end point samples collected after the removal of structures including catch basins and drain pipes and excavation activities in the South Hall area exceeded the Part 375 restricted residential use SCO (see Figure 32). Two of the eight samples were collected at depths less than two feet. This area was backfilled with certified clean fill. In addition, ten samples from the North Hall after the removal of structures including catch basins and drain pipes and excavation activities see exceed the Part 375 restricted residential use SCO for PCBs (see Figures 33 and 34). The ten sample locations were collected at depths greater than two feet. The area was backfilled with certified clean fill.

Following the removal of the cable vault, end point samples were collected from the concrete wall that was the common wall of the basement area of the western end of the South Hall (see Figure 35), and the three earthen walls and floor of the excavation area (see Figure 36). Two wall samples exceed the Part 375 restricted residential use SCO. The excavation was backfilled with the original backfill material used when the cable vault was originally backfilled in 1998 when it was filled in place. Additional certified clean fill was used to bring the excavation up to grade. Top soil was added and grass planted to prevent erosion.

The cable duct bank between the transformer yard and the cable vault and EASP-03 were removed in 2003 (see Figures 37 and 38). Additionally, two catch basins, including the drain pipes, in the north east corner of the site and one catch basin located at the base of the entrance driveway to the Site were removed in 2003 (see Figures 39 and 40). Refer to the September 2008 Echo Avenue Remedial Cleanup Summary Report

(that is included as Appendix C of this SMP) for detailed PCB data summarized in this section.

1.4.4.2 Groundwater

Five monitoring wells were originally installed on the Site in 1987 and one additional well was installed as part of the Phase II Investigation in 1992. The six wells were all sampled in 1992 as part of the Phase II Investigation (see Figure 4 for well locations and Table 4 for sample results). Figure 41 summarizes the groundwater results with exceedances of the Class GA Groundwater Standards. In 2002, NYSDEC requested that the remaining wells on the site be re-sampled for TCL organics and TAL inorganics. Only two wells, EAMW-1 and EAMW-4, could be sampled. EAMW-2 and EAMW-3 were destroyed during the transformer yard excavation activities, EAMW-6 was destroyed during the cable vault drainpipe investigation, and EAMW-5 was damaged from site activities and could not be used. The groundwater results are provided in Table 14 and presented graphically on Figure 42. The figure shows those results that exceed the Class GA Groundwater Standards. PCBs were not detected during any of the sampling events. Elevated concentrations of arsenic, beryllium, cadmium and lead in the groundwater were detected in one or more samples. Other elevated metal concentrations detected contaminants include: iron, magnesium, manganese and sodium.

Upon NYSDEC authorization, Con Edison abandoned the monitoring wells. The wells were abandoned in January 2003 in accordance with the NYSDEC Decommissioning Document.

1.4.5 Engineering and Institutional Controls

Since remaining contamination is present on the Eastern Parcel, ECs and ICs have been implemented to protect public health and the environment for the applicable future use of that portion of the Site. The Eastern Parcel has the following ECs:

1. A cover system consisting of a minimum of two (2) feet of clean soil and/or backfill material was placed on all remediated areas in the Eastern Parcel portion of the Site that will be maintained under restricted residential use limitations. Areas that required more than two feet of excavation were backfilled with clean soil and/or backfill material (gravel or sand). Based on

the sampling conducted during the Phase II investigation activities, some areas of the Eastern Parcel met the CP-51 guidance for PCBs such that no excavation or remediation activities were required in some areas of the Eastern Parcel. Some areas were covered with wood chips after backfilling. Figure 43 provides a summary of the areas that were backfilled during the remediation activities at the Site.

2. Currently, there is an eight (8) foot chain-link fence that surrounds the entire Site and a locking gate at the entrance to the Site. However, this may not be the case in the future if the Site is developed.

A series of ICs are required to implement, maintain and monitor these ECs. The Declaration requires compliance with these ICs to ensure that:

- All ECs must be operated and maintained as specified in this SMP;
- All ECs on the Site must be inspected and certified at a frequency and in a manner defined in this SMP;
- Data and information pertinent to Site Management for the Eastern Parcel must be reported at the frequency and in a manner defined in this SMP;

In addition, the Declaration places the following restrictions on the Eastern Parcel:

- Vegetable gardens and farming are prohibited;
- Use of untreated groundwater underlying the Eastern Parcel is prohibited;
- All future activities on the Eastern Parcel that would disturb remaining contamination must be conducted in accordance with the Excavation Plan included in this SMP; and
- The Eastern Parcel may be used for commercial, industrial or restricted residential use, provided that the long-term ECs and ICs described in this SMP remain in place.

These ECs and ICs are designed to:

- Prevent ingestion/direct contact with contaminated soil; and

- Prevent ingestion of groundwater with contaminant levels that exceed drinking water standards;

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Work Plans for the Echo Avenue Site from 1997 to 2003. The remedial goals included attainment of TAGM 4046 Recommended Soil Cleanup Objectives (“RSCOs”) for on-site soils have been rescinded and replaced by CP-51. The RSCOs were approved by NYSDEC and are listed in Table 5 along with the current Part 375 SCOs for unrestricted use and restricted residential use for comparison. A summary of the remedial strategies and ECs and ICs implemented at the Site are as follows:

Since remaining contaminated soil, and groundwater, exists beneath the Eastern Parcel, ECs and ICs are required for that portion of the Site to protect human health and the environment. This Engineering and Institutional Control Plan (this “EC/IC Plan”) describes the procedures for the implementation and management of all ECs and ICs applicable to the Eastern Parcel. In addition, an Excavation Plan (EP) is included in Section 2.4 to address any future intrusive work that will penetrate, encounter or disturb the remaining contamination beneath the Eastern Parcel, and any modifications or repairs to the existing cover system for the Eastern Parcel. This EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

The purpose of this Plan is to provide:

- A description of all ECs and ICs for the Eastern Parcel;
- The basic operation and intended function of each such EC and IC;

- A description of the key components of the ICs created as stated in the Declaration;
- A description of the features that should be evaluated during each periodic inspection and compliance certification period;
- A description of plans and procedures to be followed for implementation of ECs and ICs, such as the implementation of an Excavation Plan for the safe handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Eastern Parcel;
- Any other provisions necessary to identify or establish methods for implementing the ECs and ICs required by the Site remedy, as determined by NYSDEC; and
- A description of the reporting requirements for these controls.

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover System

Exposure to remaining contamination in soil/fill on the Eastern Parcel is prevented by a soil cover system in place in this portion of the Site. This cover system is comprised of a minimum of twenty four inches of soil that meets the restricted residential criteria of less than 1 mg/kg PCBs. As mentioned in Section 1.4.5, soil sampling conducted during the Phase II investigation activities indicated some areas of the Eastern Parcel met the CP-51 guidance for PCBs down to four feet below grade such that no excavation or remediation activities were required. If there are potential future excavations to be implemented in the Eastern parcel, this work must be performed in accordance with the excavation plan within this SMP (see Section 2.4). The Excavation Plan that appears in Section 2.3.1 outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is potentially disturbed. Procedures for the inspection and maintenance of this cover system are provided in the Monitoring Plan included in Section 3 of this SMP.

Procedures for monitoring the cover system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition such as heavy sustained rain, which may affect controls at the Site, occurs.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, the remedial processes will be considered to be completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The specific determination of when the following remedial processes are complete will be made in compliance with Section 6.5 of NYSDEC DER-10.

2.2.2.1 Soil Cover System

The Soil cover system in the Eastern Parcel is a permanent EC and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.3 INSTITUTIONAL CONTROLS

A series of ICs is required by the Declaration to: (1) implement, maintain and monitor ECs for the Eastern Parcel; (2) prevent future exposure to remaining contamination on the Eastern Parcel by controlling disturbances of the subsurface contamination; and (3) limit the use and development of the Eastern Parcel to commercial, industrial or restricted residential uses only. Adherence to these ICs on the site is required by the Declaration and will be implemented under this SMP. These ICs are:

- Compliance with the Declaration by the Grantor and the Grantor's successors and assigns with all elements of this SMP;
- All ECs for the Eastern Parcel must be operated and maintained as specified in this SMP;
- All ECs for the Eastern Parcel must be inspected and certified at a frequency and in a manner defined in this SMP; and

- Data and information pertinent to Site Management for the Eastern Parcel must be reported at the frequency and in a manner defined in this SMP.

ICs may not be discontinued without an amendment to or extinguishment of the Declaration.

The Eastern Parcel has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Declaration. Site restrictions that apply to the Eastern Parcel are:

- Vegetable gardens and farming, including cattle and dairy farming, on the Eastern Parcel are prohibited;
- The use of the groundwater underlying the Eastern Parcel is prohibited without treatment rendering it safe for intended purpose;
- All future activities on the Eastern Parcel that will disturb remaining contaminated material are prohibited unless they are conducted in accordance with this SMP;
- The Eastern Parcel may only be used for commercial, industrial or restricted residential use provided that the long-term ECs and ICs included in this SMP are employed.

The Eastern Parcel may not be used for a less restrictive use, such as unrestricted use without additional remediation and amendment of the Declaration by the Commissioner of NYSDEC.

The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) the controls employed at the Eastern Parcel are unchanged from the previous certification or that any changes to the controls were approved by NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with this SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Soil Vapor Intrusion Evaluation

Based on historic site usage and the findings during site remediation activities, VOCs and mercury were not identified as contaminants of concern for the Site. Therefore, a soil vapor intrusion evaluation is not necessary for the Site.

2.4 EXCAVATION PLAN

The remedy allows for unrestricted use of the Western Parcel and restricted residential use for the Eastern Parcel. This SMP pertains to the Eastern Parcel portion of the Site. Any future intrusive work that will penetrate, encounter or disturb the remaining contamination on the Eastern Parcel, and any modifications or repairs to the existing cover system for the Eastern Parcel will be performed in compliance with this Excavation Plan (this “EP”). Intrusive construction work on the Eastern Parcel must also be conducted in accordance with the procedures defined in a Health and Safety Plan (“HASP”) and a Community Air Monitoring Plan (“CAMP”) prepared for the Site. A sample HASP that is in compliance with current applicable regulations (including DER-10, and 29 CFR 1910, 29 CFR 1926 and all other applicable Federal, State and local regulations) is attached as Appendix D to this SMP. The HASP is the same version that was used during previous remediation work performed by Con Edison on the Site. Based on future changes to State and Federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section 2.4.1 below. Any intrusive construction work will be performed in compliance with this EP, the HASP and the CAMP, and will be included in the periodic inspection and certification reports submitted under this SMP (see Section 2.6).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all invasive work, the structural integrity of excavations and for structures that may be affected by excavations (such as building foundations).

The Site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, ECs provided for in this SMP.

Each hotspot and structure to be remediated will be removed and end-point remedial performance sampling completed before excavations related to site development commence proximal to the hotspot or structure.

Mechanical processing of historical fill and contaminated soil on-site is prohibited.

All primary contaminant sources (including but not limited to hotspots) identified during site Characterization, Remedial Investigation and/or Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. The survey information will be shown on maps to be reported in the Periodic Review Report.

2.4.1 Notification

At least 10 days prior to the start of any activity that is reasonably anticipated to encounter remaining contamination on the Eastern Parcel, the Site owner or the Site owner's representative will notify NYSDEC. Currently, this notification will be made to:

Mr. George Heitzman
625 Broadway
Albany, NY 12233
(518) 402 9682

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, or any work that may impact an EC;
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;

- A statement that the work will be performed in compliance with this EP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan, in electronic format;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

2.4.2 Soil Screening Methods

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (e.g., remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after implementation of this SMP.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

2.4.3 Stockpile Methods

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

2.4.4 Materials Excavation and Load Out

A qualified environmental professional or person under the professional's supervision will oversee all invasive work and the excavation and load-out of all excavated material on the Eastern Parcel.

The owner of the Site and its contractors are solely responsible for safe execution of all invasive and other work performed on the Eastern Parcel under this EP.

The presence of utilities and easements on the on the Eastern Parcel will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this EP are complete.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested and placarded in accordance with appropriate Federal, State, local and NYSDOT requirements (and all other applicable transportation requirements).

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

2.4.5 Materials Transport Off-Site

All transport of materials from the Eastern Parcel will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck bed liners will be used.

All trucks will be washed prior to leaving the Eastern Parcel. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Truck transport routes will be identified that will: (a) limit transport through residential areas and past sensitive sites; (b) use city-mapped truck routes; (c) minimize off-site queuing of trucks entering the facility; (d) limit total distance to major highways; and (e) promote safety in access to highways.

Trucks will be prohibited from stopping and idling in the neighborhood outside the Site. Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Due to limited available space at the Site, some off-site queuing of trucks may be necessary. The number and duration of trucks lined up outside the Site entrance will be minimized through efficient scheduling and staging at a remote location.

2.4.6 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the Eastern Parcel will be treated as impacted and regulated material and will be transported and disposed in accordance with all local, State (including 6 New York Code of Rules and Regulations (“NYCRR”) Part 360), and Federal regulations. If disposal of soil/fill from the Eastern Parcel is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC. Unregulated off-site management of materials from the Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils from the Eastern Parcel will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, construction and demolition (“C&D”) recycling facility, etc. Actual disposal quantities and associated documentation

will be reported to NYSDEC in the Periodic Review Report. This documentation will include: waste profiles; test results; facility acceptance letters; manifests; bills of lading; and facility receipts.

Non-hazardous historic fill and contaminated soils from the Eastern Parcel that are taken off-site will be handled, at minimum, as a Municipal Solid Waste pursuant to 6 NYCRR Part 360-1.2. Material that does not meet the lower of the SCOs for residential use or groundwater protection will not be taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility) without a beneficial use determination issued by NYSDEC.

2.4.7 Materials Reuse On-Site

Chemical criteria for on-site reuse of material have been approved by NYSDEC and are listed in Table 5. The criteria listed under Part 375, restricted residential use, should be used for the Eastern Parcel portion of the Site. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on the Eastern Parcel will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

2.4.8 Fluids Management

All liquids to be removed from the Eastern Parcel, including excavation dewatering, will be handled, transported and disposed in accordance with applicable local, State and Federal regulations. Discharge of water generated during large-scale

construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

2.4.9 Cover System Restoration

After the completion of soil removal and any other invasive remedial activities, the cover system on the Eastern Parcel will be restored in a manner that complies with the Declaration. There is no obvious demarcation layer, such as polyethylene sheeting on the Eastern Parcel. When excavating, there may be some areas of the Eastern Parcel where there is a distinct difference between the backfill material and the fill material such as areas where stone was placed in the bottom of the excavation. If the type of cover system on the Eastern Parcel changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to this SMP.

2.4.10 Backfill from Off-Site Sources

All materials proposed for import onto the Eastern Parcel will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP, applicable regulations (6 NYCRR 375-6.7(d)) and guidance (Division of Environmental Remediation (“DER”)-10) prior to receipt at the Site.

Material from industrial sites, spill sites or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d). Based on an evaluation of the land use the resulting soil quality standards for imported backfill are listed in Table 5. The criteria listed under Part 375, unrestricted use, should be used for the unrestricted use portion of the Site and the criteria listed under Part 375, restricted residential use, should be used for the restricted residential use portion of the Site. Soils that meet “exempt” fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for the Site,

will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

2.4.11 Stormwater Pollution Prevention

A Stormwater Pollution Prevention Plan (“SWPPP”) including a soil and erosion control plan will be developed prior to any remediation occurring on the Eastern Parcel. Some aspects of the SWPPP to be included are:

- Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.
- Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.
- All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.
- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.
- Erosion and sediment control measures identified in this SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters
- Silt fencing or hay bales will be installed around the entire perimeter of the remedial construction area.

2.4.12 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides, per and polyfluoroalkyl substances (PFAS), 1,4-Dioxane, and PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in daily and periodic electronic media reports.

2.4.13 Community Air Monitoring Plan

An example CAMP is provided in Appendix D; the example CAMP was used during all the past remediation efforts undertaken by Con Edison on the Site.

A map showing the location of air sampling stations based on generally prevailing wind conditions is shown in Figure 44. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

2.4.14 Odor Control Plan

This odor control plan (the "OCP") is intended to control emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis for soil

intrusive activities on the Eastern Parcel will include: limiting the area of open excavations; covering excavations with tarps or other covers during off-hours; and, if necessary, using foams to cover exposed odorous soils. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project in question. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soil. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

2.4.15 Dust Control Plan

A dust suppression plan that addresses dust management during invasive work on the Eastern Parcel will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

2.4.16 Other Nuisances

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work on the Eastern Parcel to ensure compliance with local noise control ordinances.

2.5 INSPECTIONS AND NOTIFICATIONS

2.5.1 Periodic Inspections

Periodic inspections of all remedial components installed on the Eastern Parcel will be conducted at the frequency specified in the Monitoring Plan schedule (see Section 3). A comprehensive inspection of the Eastern Parcel will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Declaration;
- Achievement of remedial performance criteria;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial system.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3), using the Site-Wide Inspection Form included in Appendix E. The reporting requirements are outlined in the Site Management Reporting Plan (Section 2.6).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the ECs and ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.5.2 Notifications

Notifications will be submitted by the property owner to NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Order, 6 NYCRR Part 375 and/or Environmental Conservation Law.
- 10-day advance notice of any proposed ground-intrusive activities on the Eastern Parcel.
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other ECs and likewise any action to be taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such as a fire, flood or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, including a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Notifications will be made to Mr. George Heitzman, NYSDEC Site Management Project Manager, 625 Broadway, Albany, NY 12233, (518) 402-9682. In the event that NYSDEC develops a centralized notification system, that system will be used instead.

2.5.3 Evaluation and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC and IC certification to confirm that the:

- ECs and ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly;

And, based on the above items,

- The site remedy continues to be protective of public health and the environment and is performing as outlined in the Echo Avenue Remedial Cleanup Summary Report (Appendix C).

2.6 REPORTING PLAN

2.6.1 Introduction

A Periodic Review Report for the Eastern Parcel will be submitted to NYSDEC. The Periodic Review Report will be prepared in accordance with NYSDEC DER-10, “Technical Guidance for Site Investigation and Remediation.” The frequency of submittal of the Periodic Review Report may be modified with the approval of NYSDEC.

Each Periodic Review Report will include the following:

- Identification of all ECs and ICs required by this SMP for the Eastern Parcel;
- An assessment of the effectiveness of all ICs and ECs for the Eastern Parcel;
- An evaluation of the EC and IC Plan and the Monitoring Plan for adequacy in meeting remedial goals;

- Results of the required annual site inspections and severe condition inspections, if any;
- A compilation of all deliverables generated during the reporting period, as specified in Section 2 of the EC and IC Plan, Section 3 of the Monitoring Plan and Section 4 of the Operation and Maintenance Plan; and
- Certification of the ECs and ICs.

2.6.2 Certification of Engineering and Institutional Controls

Inspection of the ECs and ICs for the Eastern Parcel will occur at the frequency described in Section 3 (Monitoring Plan) of this SMP. After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State depending on the need to evaluate engineering systems will prepare a Periodic Review Report which certifies that:

- On-site ECs and ICs are unchanged from the previous certification;
- The ECs and ICs remain in-place and are effective;
- The systems are performing as designed;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls;
- Access is available to the site by NYSDEC and NYSDOH to evaluate continued maintenance of such controls; and
- Site use is compliant with the Declaration.

2.6.3 Periodic Review Report

A Periodic Review Report will be submitted every year, beginning one year after the Certificate of Completion or equivalent document (e.g., Satisfactory Completion Letter, No Further Action Letter, etc.) or implementation of this SMP, whichever is later.

This review every year will ensure all ECs and ICs remain and that the Site continues to represent no immediate threat to human health or the environment. Should site activities change, the inspection frequency can be re-evaluated. The report will be submitted within 45 days of the end of each certification period. Other reports will be submitted for the first year, and as determined by NYSDEC thereafter. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- EC and IC certification;
- All applicable inspection forms and other records generated for the Eastern Parcel during the reporting period;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data sufficient for the Department to evaluate contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A performance summary for the cover system on the Eastern Parcel during the calendar year, including information such as:
 - A description of the resolution of performance problems;
 - A summary of the performance and/or effectiveness monitoring; and
 - Comments, conclusions and recommendations based on data evaluation.
- A site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the site-specific Decision Document;

- o Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
- o Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
- o The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Regional Office located closest to the site, and in electronic format to NYSDEC Central Office and the NYSDOH Bureau of Environmental Exposure Investigation.

3.0 MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

This Monitoring Plan describes the measures for evaluating the performance and effectiveness of the implemented ECs for the Eastern Parcel to reduce or mitigate contamination on this portion of the Site. ECs for the Eastern Parcel include: soil cover system. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Reporting requirements; and
- Annual inspection and periodic certification.

3.2 ENGINEERING CONTROL SYSTEM MONITORING

A soil cover system consisting of a minimum of twenty four inches of soil or clean backfill material (e.g. gravel or sand) that meets the restricted residential criteria of less than 1 mg/kg PCBs is in place in the Eastern Parcel. Clean backfill was placed on all remediated areas in the Eastern Parcel. In some of the deeper excavations clean stone or gravel was placed in the bottom of the excavation prior to backfilling. As mentioned in Section 1.4.5, soil sampling conducted during the Phase II investigation activities indicated some areas of the Eastern Parcel met the CP-51 guidance for PCBs down to two feet below grade (less than 1 mg.kg) such that no excavation or remediation activities were required in some portions of the Eastern Parcel. The work at the Site was conducted in stages such that the cover system for the Eastern Parcel was completed by May 2003.

3.2.1 Inspection Schedule

The soil cover system on the Eastern Parcel should be inspected annually to ensure that the soil cover is still in place. If work is conducted that impacts the integrity of the soil cover system, the inspection frequency may be changed. In addition, if the Site becomes occupied with residents, the soil cover system should be inspected annually to ensure that the cover has not been disturbed.

Inspection frequency is subject to change with the approval of NYSDEC. Unscheduled inspections and/or sampling may take place when a suspected failure of the soil cover system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. Monitoring deliverables for the soil cover system are specified later in this Monitoring Plan.

3.2.2 General Equipment Inspection

Not applicable.

3.2.3 System Monitoring Devices and Alarms

Not applicable.

3.2.4 Sampling Event Protocol

Not applicable.

3.3 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC, and (2) submitted at the time of the Periodic Review Report, as specified in Section 2.6.

All media and engineering system monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report of monitoring results will include, at a minimum:

- Date of monitoring/inspection event;
- Personnel conducting sampling;
- Description of the activities performed;
- A photograph log containing photographs of the soil cover system documenting the condition of the cover system and any areas of concern or areas where the cover system may be compromised;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc), if applicable;
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, inspection checklists, etc.);
- Sampling results in comparison to appropriate standards/criteria, if applicable;
- A figure illustrating sample type and sampling locations, if applicable;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format), if applicable; and
- Any observations, conclusions, or recommendations; and

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

The Site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

4.2 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

4.2.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance on the Eastern Parcel, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to a qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the site.

Table 15: Emergency Contact Numbers*

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

4.2.2 Map and Directions to Emergency Health Facility

Site Location: Echo Avenue Site
 78 Echo Avenue
 New Rochelle, New York

Nearest Hospital Name: Sound Shore Medical Center

Hospital Location: 16 Guion Place
 New Rochelle, New York 10802

Hospital Telephone: (914) 632-5000

Directions to the Hospital:

1. From Site, turn right on Echo Avenue and go 0.2 miles.
2. Continue on River Street for 0.2 miles.
3. Slight left to stay on River Street for another 0.2 miles.
4. Continue on Cedar Street for another 0.1 miles.
5. Continue on Norman Rockwell Blvd for another 0.3 miles.
6. At the traffic circle, take the 2nd exit and stay on Norman Rockwell Blvd for another 0.2 miles.
7. Turn right at Lockwood Avenue and go 131 feet.
8. Turn left at Guion Place and go 436 feet and arrive at South Shore Medical Center.

Total Distance: 1.2 miles

Total Estimated Time: about 4 minutes.

A map showing the route from the Site to the Hospital is provided as Figure 45 in the Figures section at the back of this SMP.

4.2.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 15). The list will also be posted prominently at the Site and made readily available to all personnel at all times.

Echo Avenue

NEW ROCHELLE, WESTCHESTER COUNTY, NEW YORK

Site Management Plan

FIGURES



0 2000 ft

SCALE
1 in. = 2000 ft

Map source:
USGS 7.5-minute quadrangle map,
Mt. Vernon, NY, 1966, photorevised 1979.

NEW YORK STATE

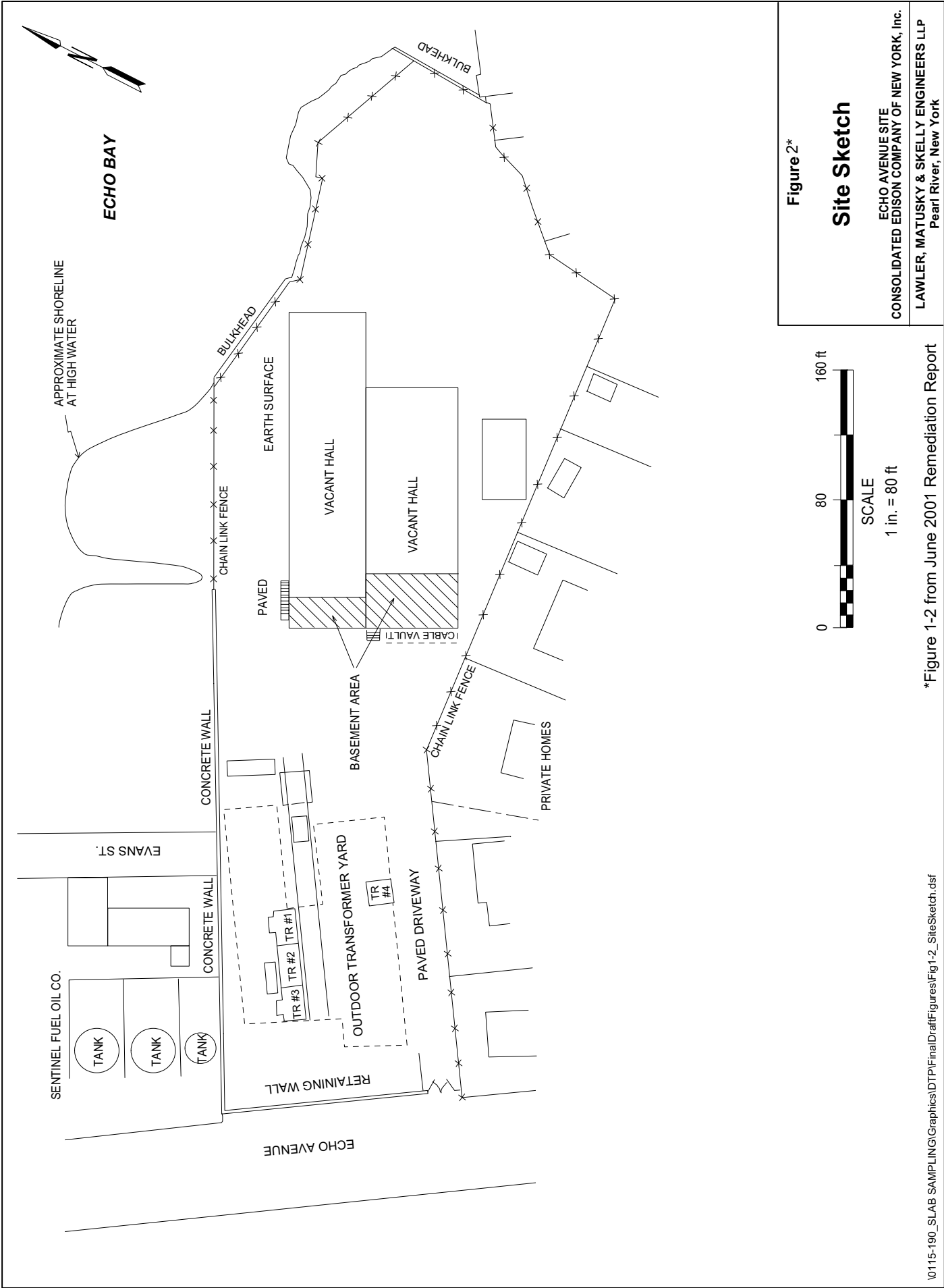
QUADRANGLE
LOCATION

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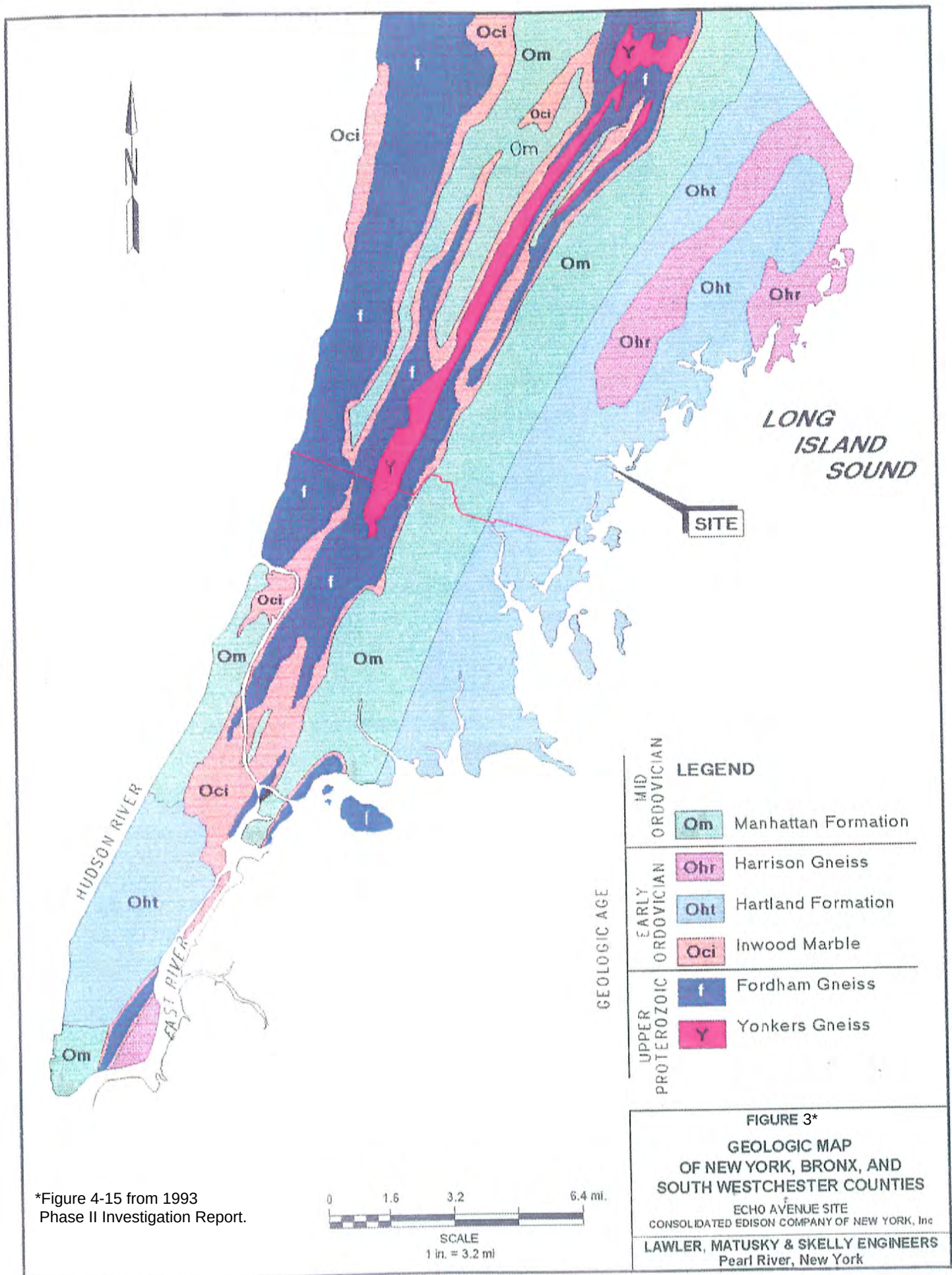
Figure 1

Site Location

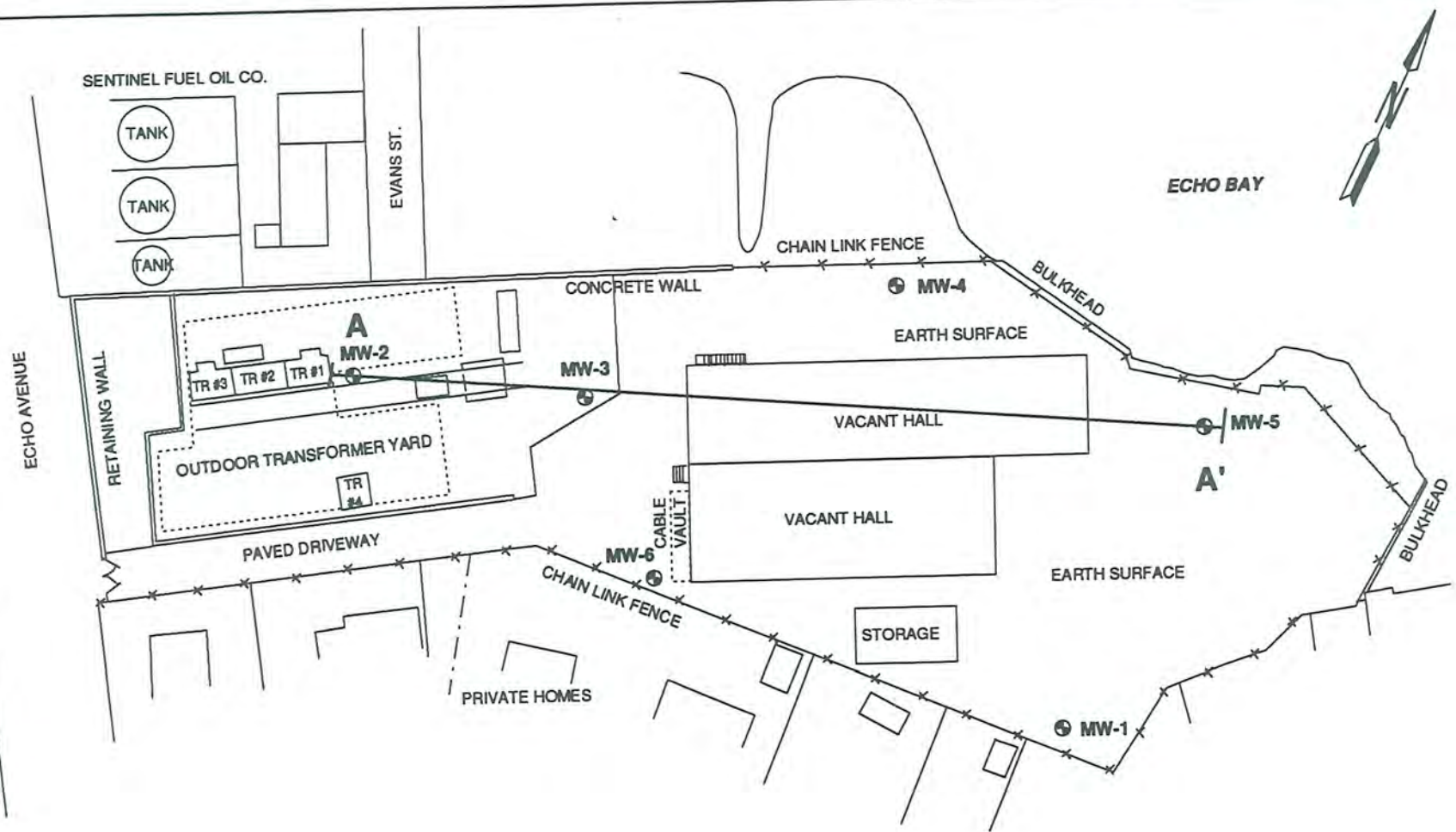
ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



*Figure 1-2 from June 2001 Remediation Report



*Figure 4-15 from 1993
 Phase II Investigation Report.



LEGEND

● Location of monitoring well

* Figure 4-16 from 1993
Phase II Investigation Report.

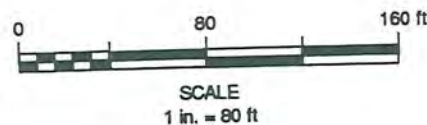
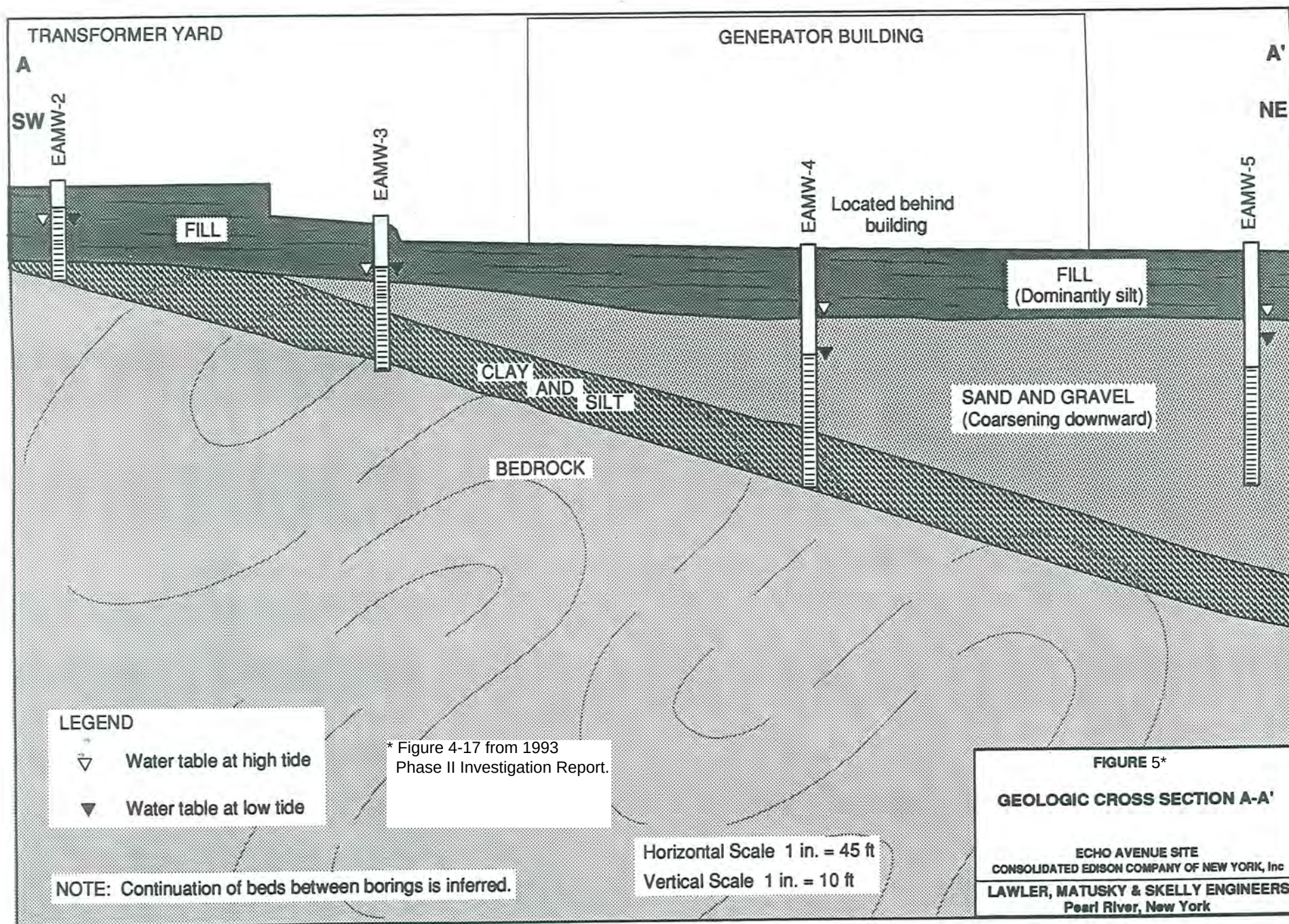
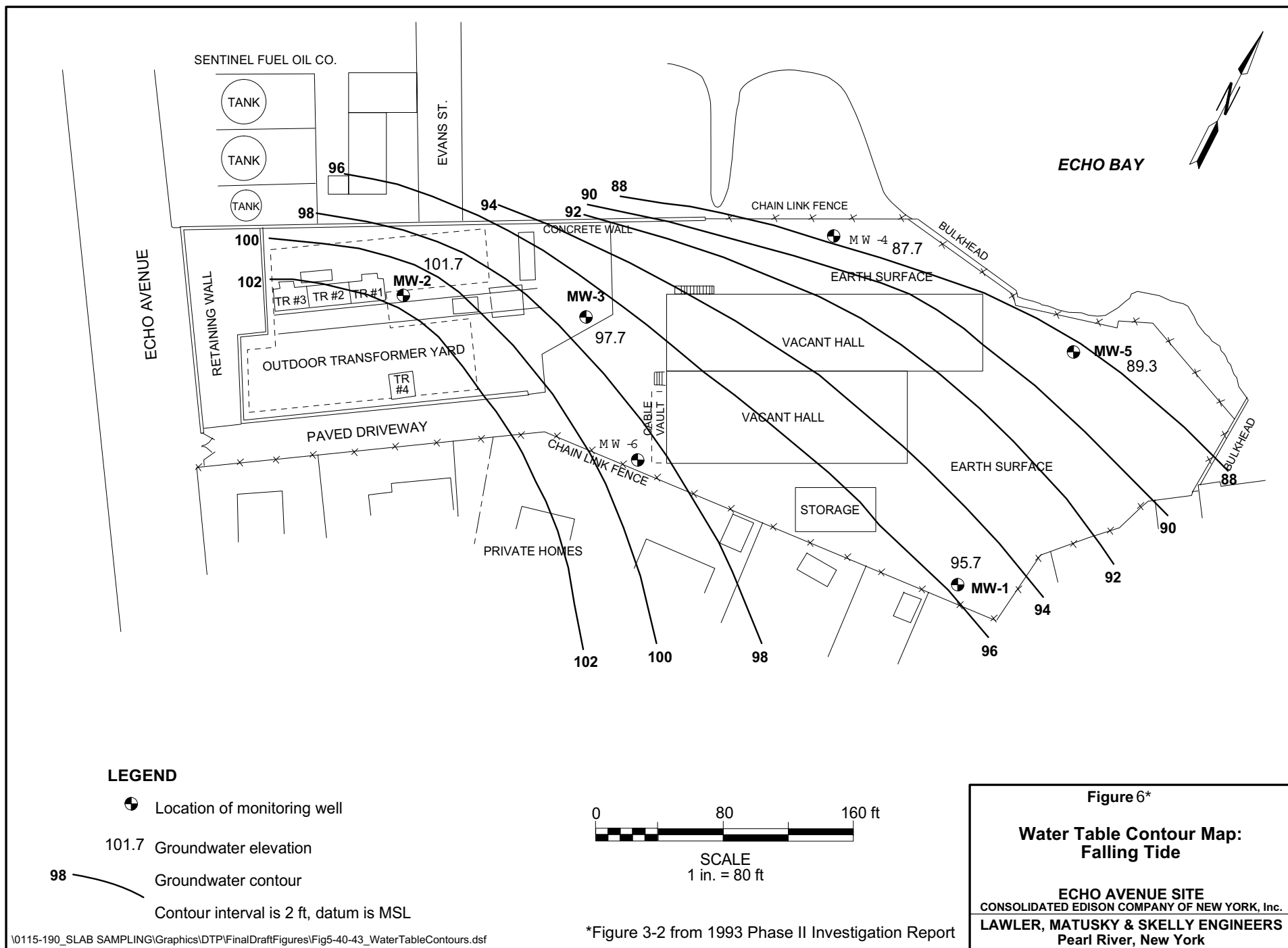


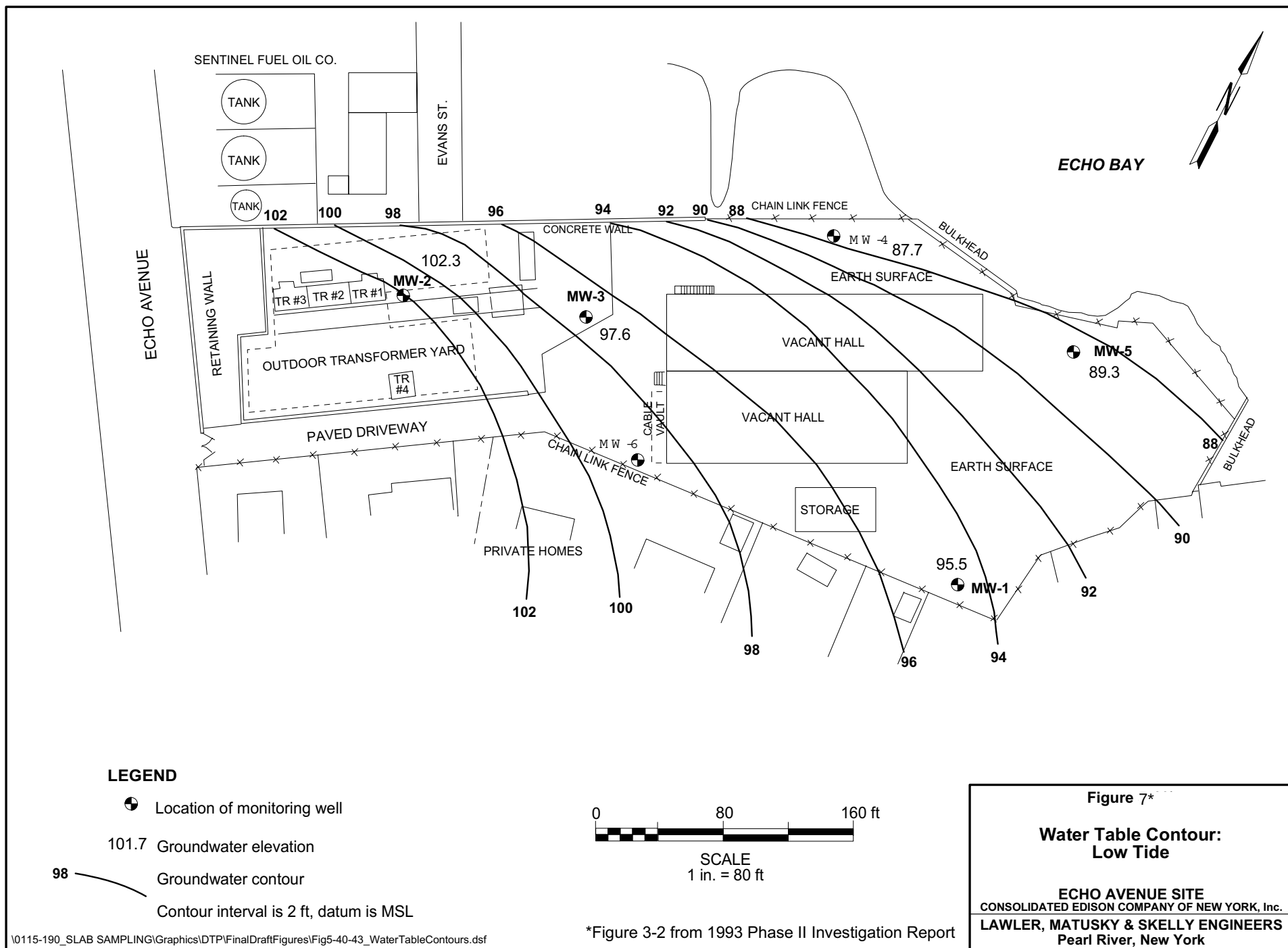
FIGURE 4*

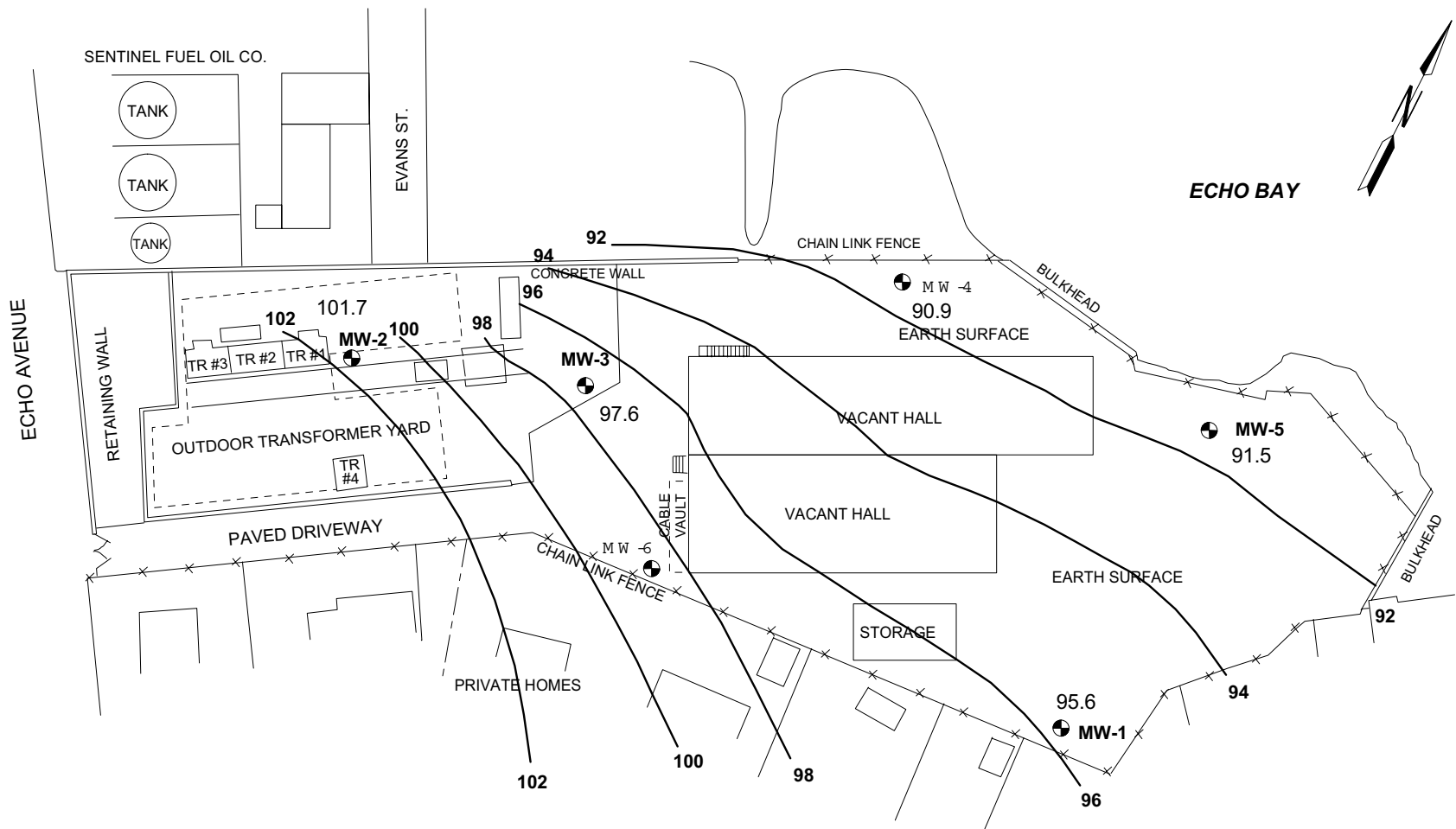
LOCATION OF GEOLOGIC CROSS SECTION A-A'

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York









LEGEND

● Location of monitoring well

101.7 Groundwater elevation

98 — Groundwater contour

Contour interval is 2 ft, datum is MSL

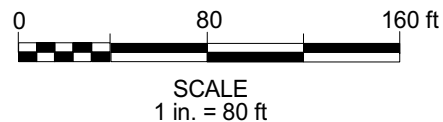
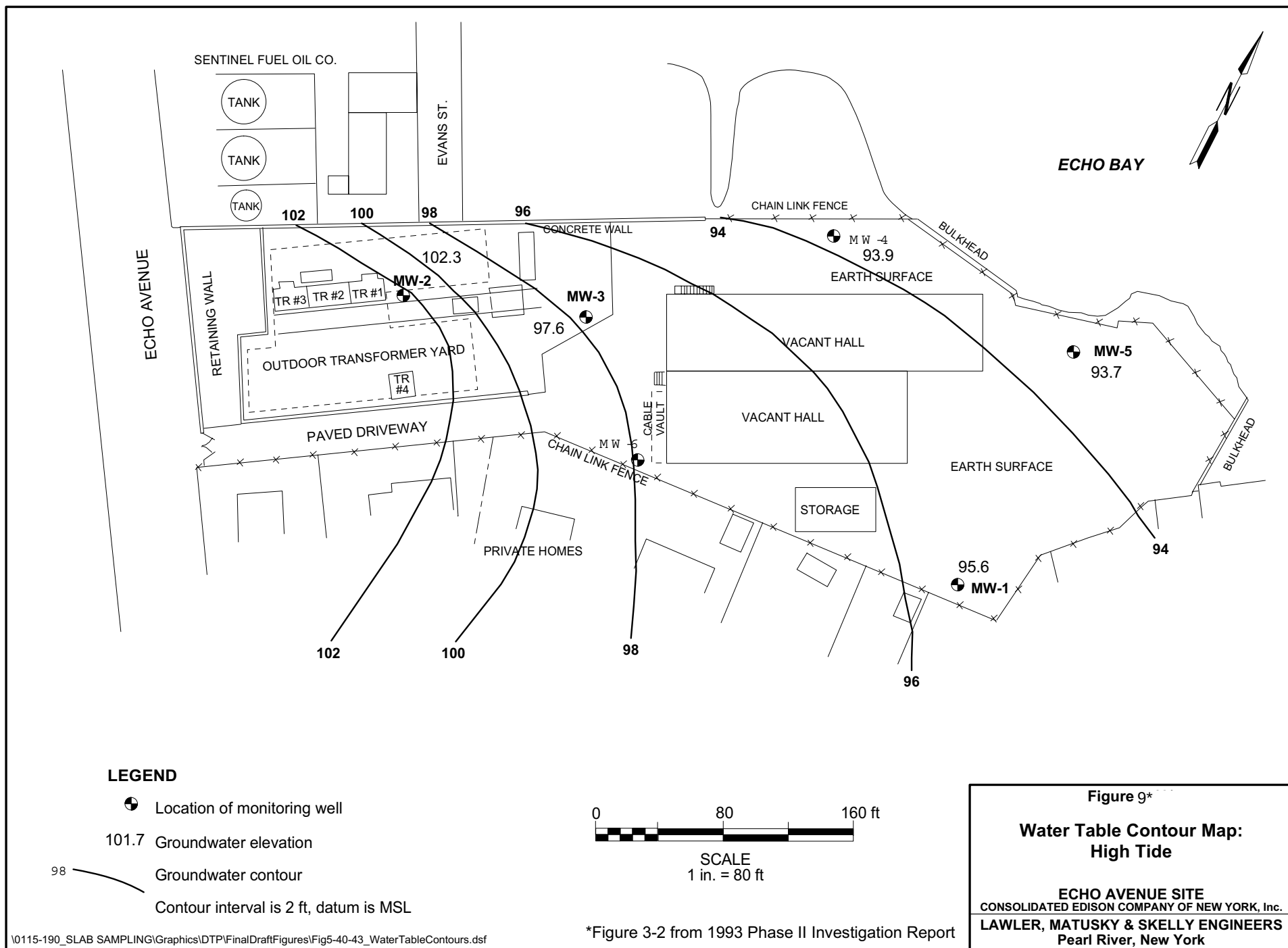
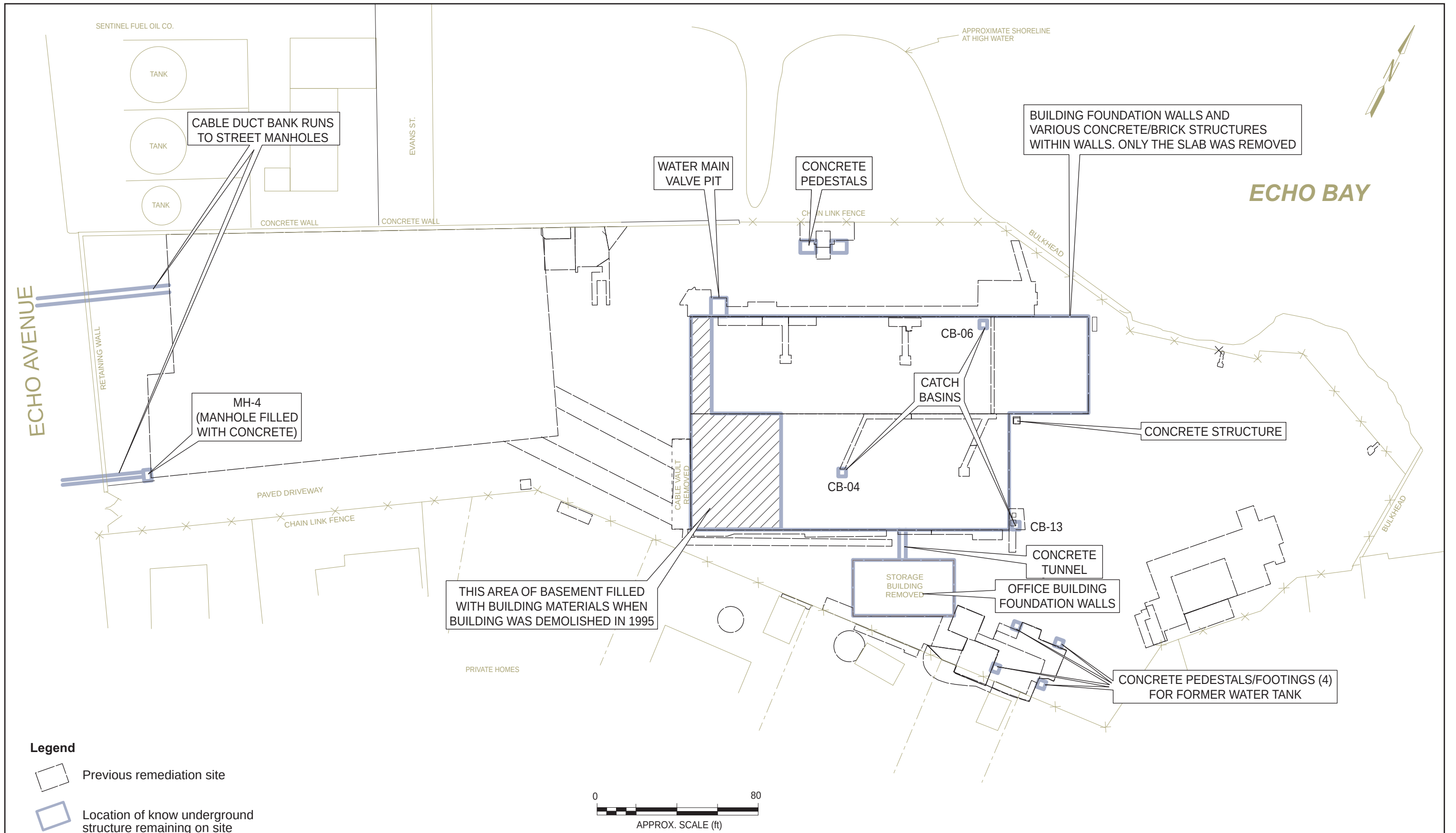


Figure 8*

Water Table Contour Map: Rising Tide

ECHO AVENUE SITE
 CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS
 Pearl River, New York





W0115-190_SLAB SAMPLING\Graphics\DTPI\FinalDraftFigures\Fig10_KnownUndergroundStructuresRemainingOnSite.des

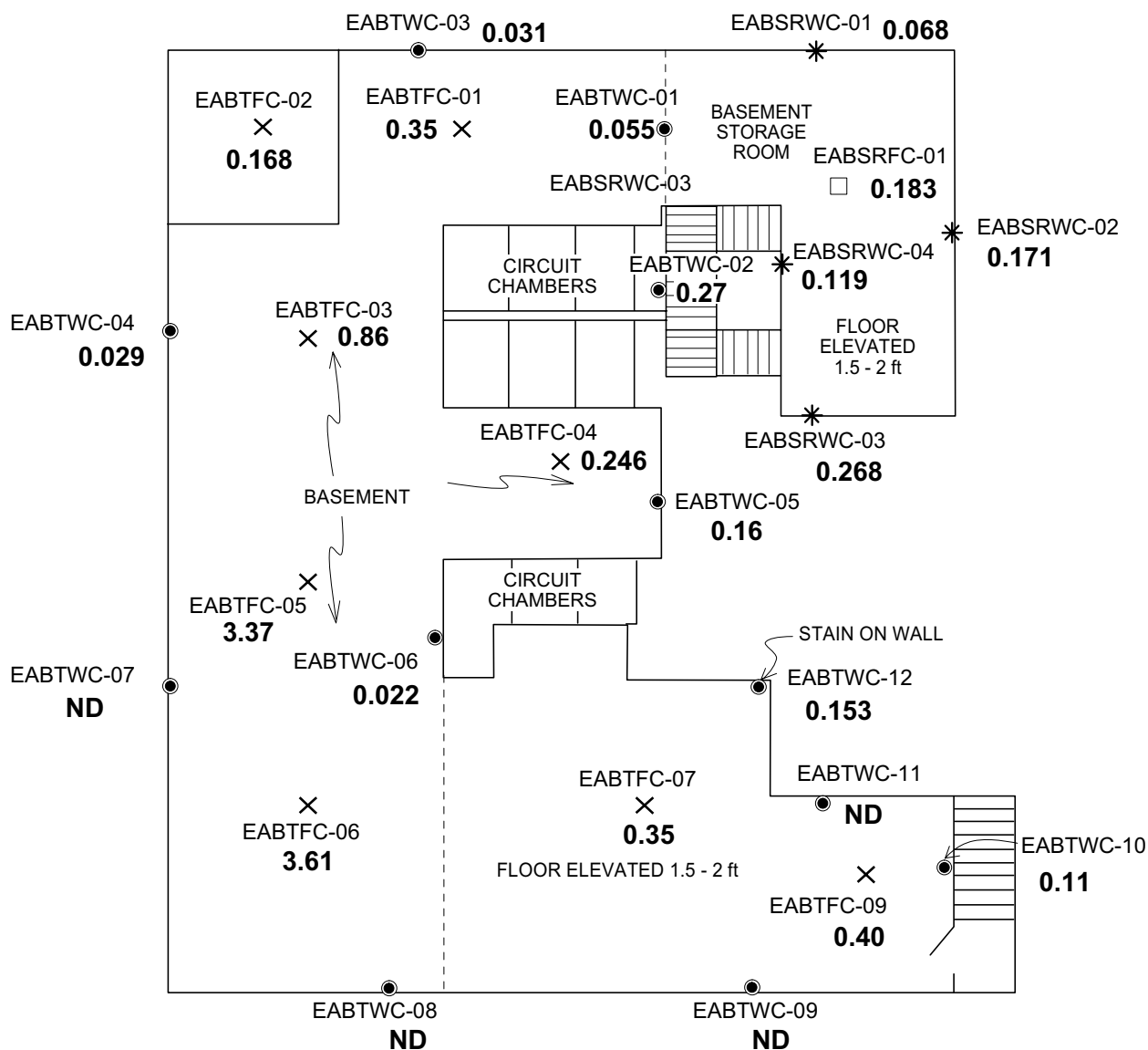
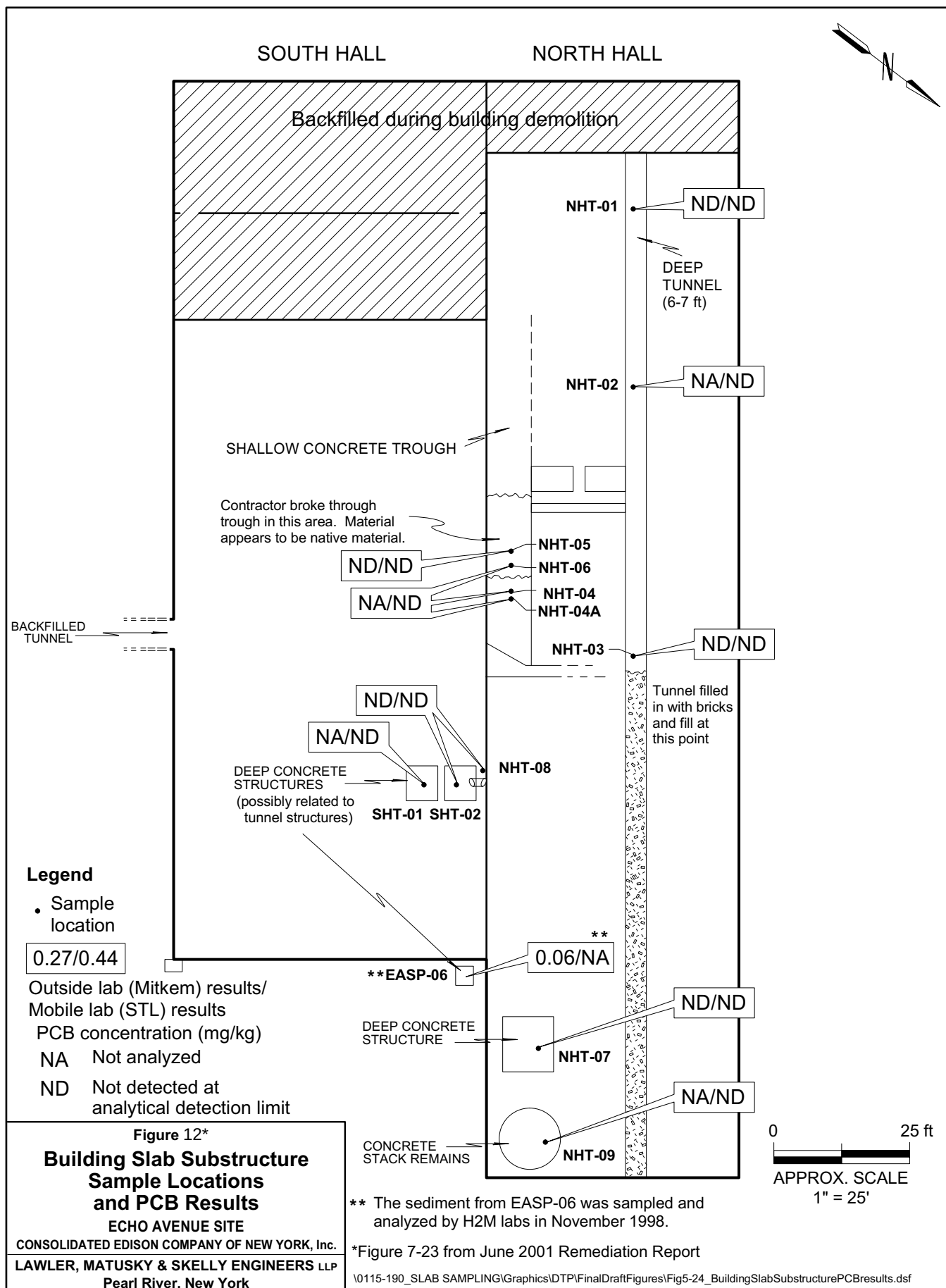
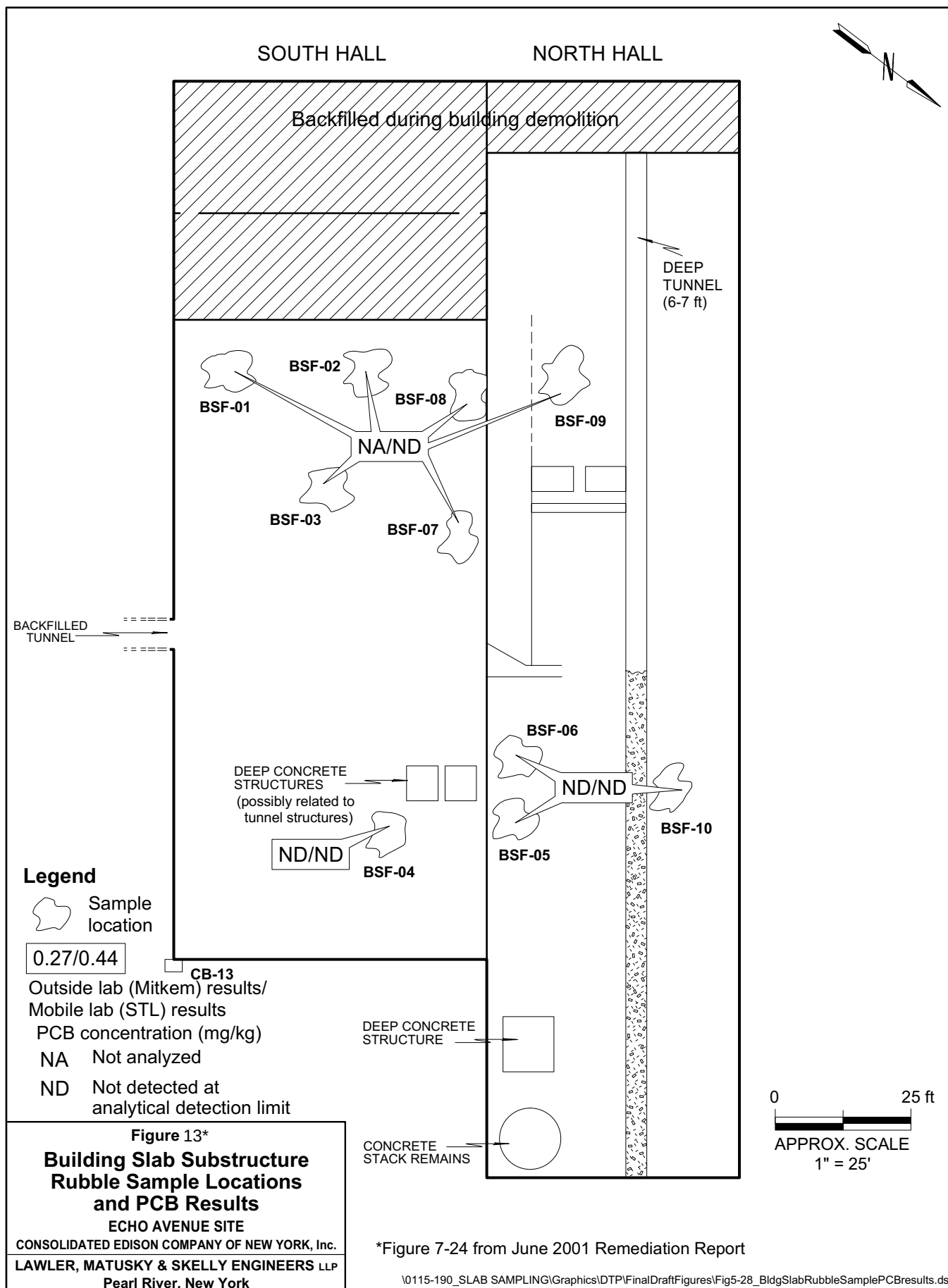


Figure 11*
**PCB Concentrations in Basement
and Basement Storage Room
Concrete Core Samples**

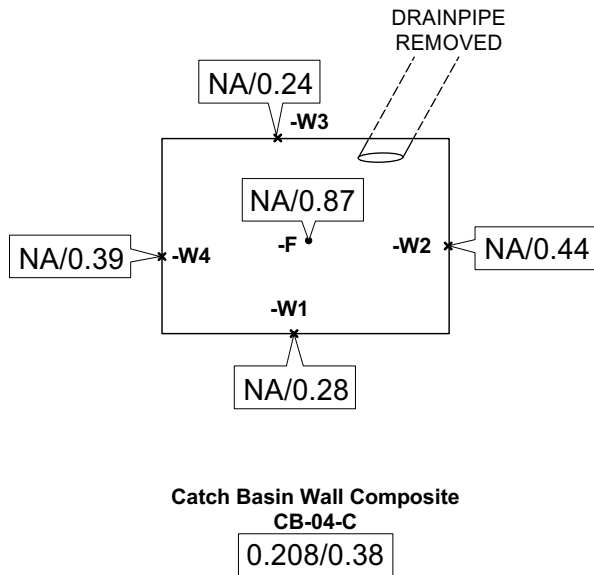
ECHO AVENUE SITE
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LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 4-1 from April 1996 Second Report





CB-04

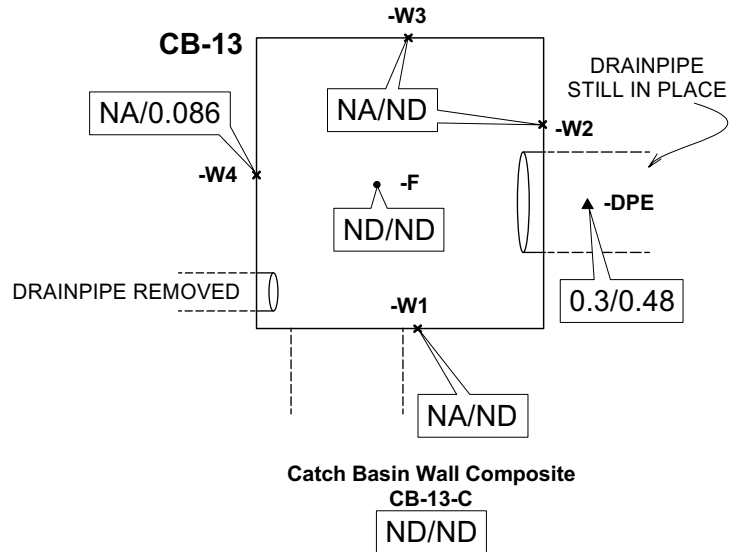


NOTE:

All sample numbers are prefixed with catch basin ID, e.g. CB-04-W2

Catch basin is 1.5 ft deep

CB-13



NOTE:

All sample numbers are prefixed with catch basin ID, e.g. CB-13-W2

Catch basin is 3.5 ft deep

Legend

- Floor concrete sample
- × Wall concrete sample
- ▲ Drainpipe sample

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed

ND Not detected at
analytical detection limit

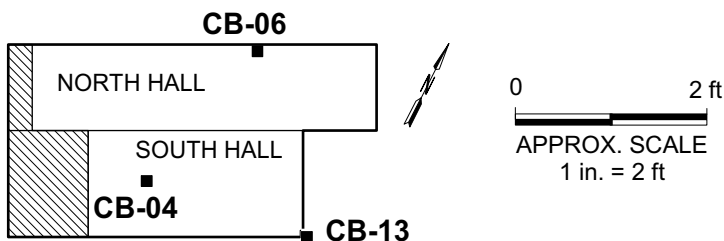
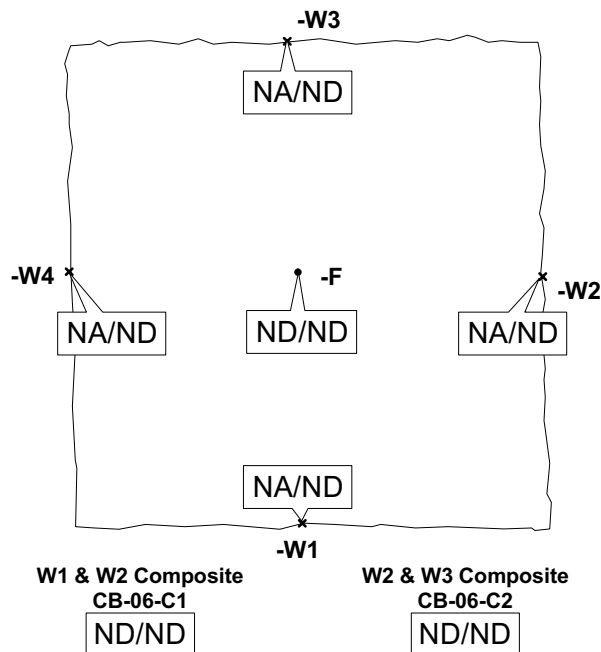


Figure 14*
South Hall
Catch Basin Concrete,
and Sediment Sample Locations
and PCB Results
ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 7-21b from June 2001 Remediation Report

CB-06



NOTE:

All sample numbers are prefixed with catch basin ID, e.g. **CB-06-W2**

- No drainpipes in CB-06
- W1 & W2 were fill walls
- W2 & W3 were brick/concrete walls
- Catch basin is 3 ft deep

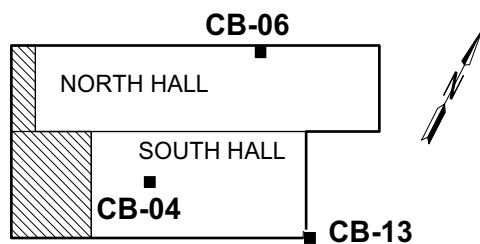
Legend

- Floor concrete sample
- × Wall concrete sample

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed

ND Not detected at
analytical detection limit

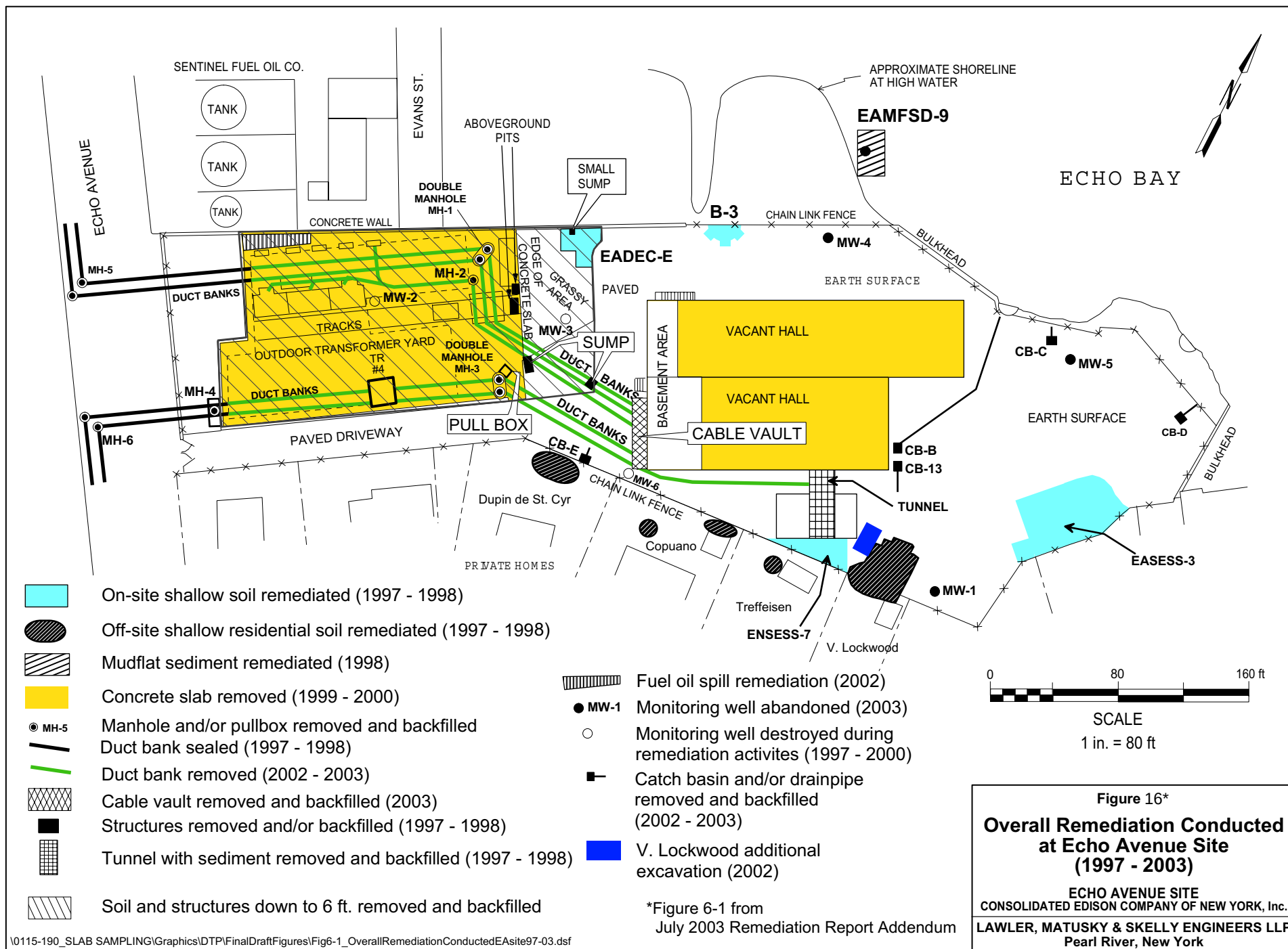


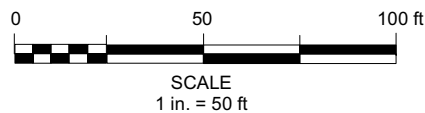
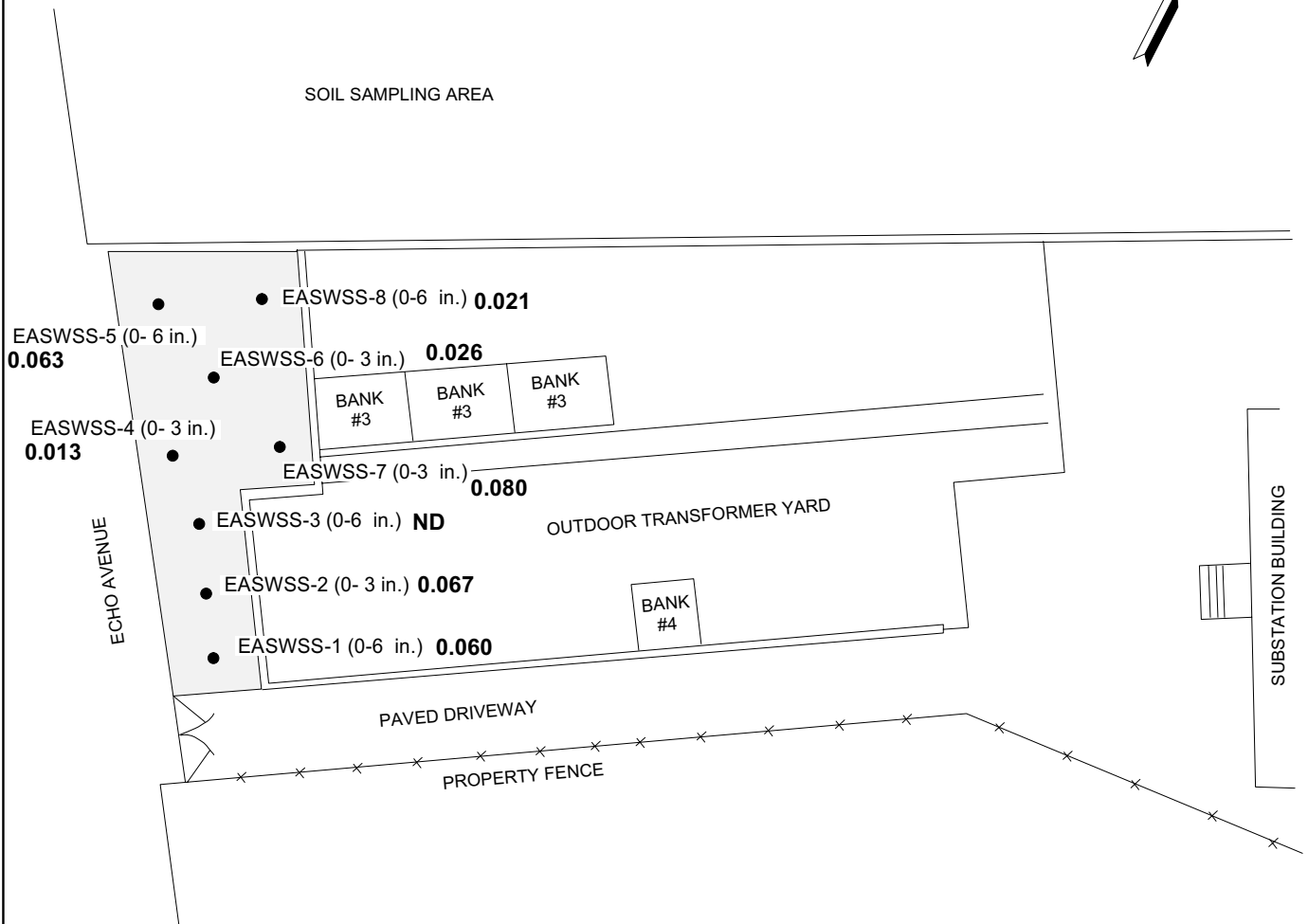
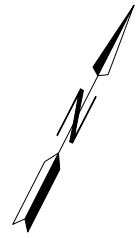
0 2 ft
APPROX. SCALE
1 in. = 2 ft

Figure 15* North Hall Catch Basin Concrete, and Soil Sample Locations and PCB Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
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Pearl River, New York

*Figure 7-22d from June 2001 Remediation Report





LEGEND

- Soil sample point
- ND No detection

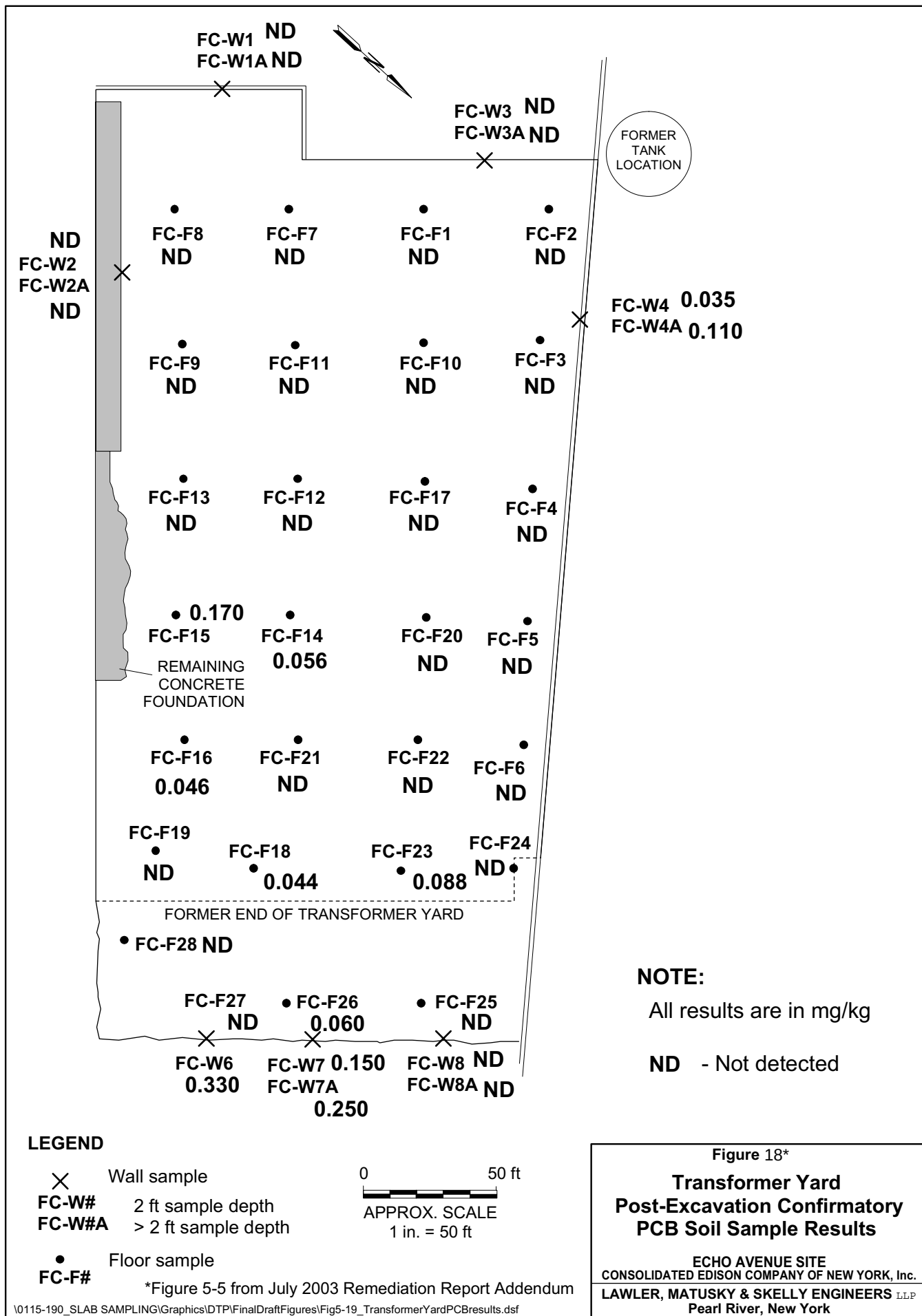
NOTE: Concentration units = mg/kg

*Figure 4-20 from February 1993 Phase II Investigation Report

Figure 17*

PCB Concentrations Shallow Soil Samples at Southwestern End of Property

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York



FORMER
TRANSFORMER
MOAT No. 4 AREA

PEDESTALS

FORMER
PEDESTALS/PIERS

RAMP

FL-1

SW-1

NW-1

Bedrock

FL-2

SW-2

PROPERTY LINE

0 25 ft

APPROX. SCALE
1 in. = 25 ft

\\15155-transformer yard.dsf

Legend

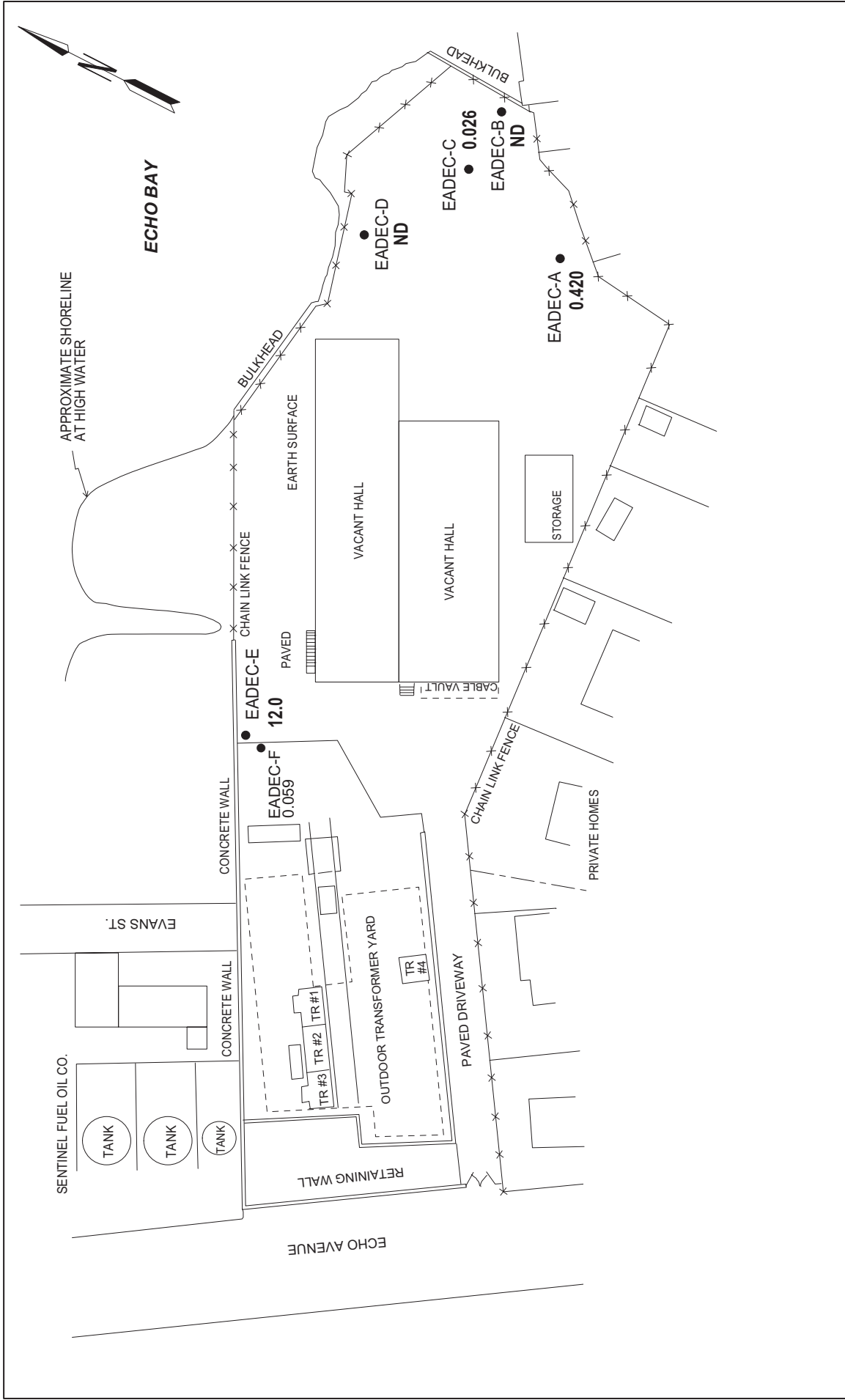
-  Fuel Oil Excavation
(50' long x 13' wide x 5' deep)
- Floor Sample
- ✕ Wall Sample (taken 3ft BGS)

*Figure 2 from August
2002 Fuel Oil Spill
Report

Figure 19*

Transformer Yard May 2002 Fuel Oil Excavation Sample Locations

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Pearl River, New York



LEGEND

- Soil sample point
- ND No detection

NOTE: concentration units = mg/kg

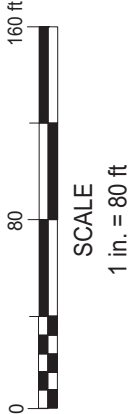
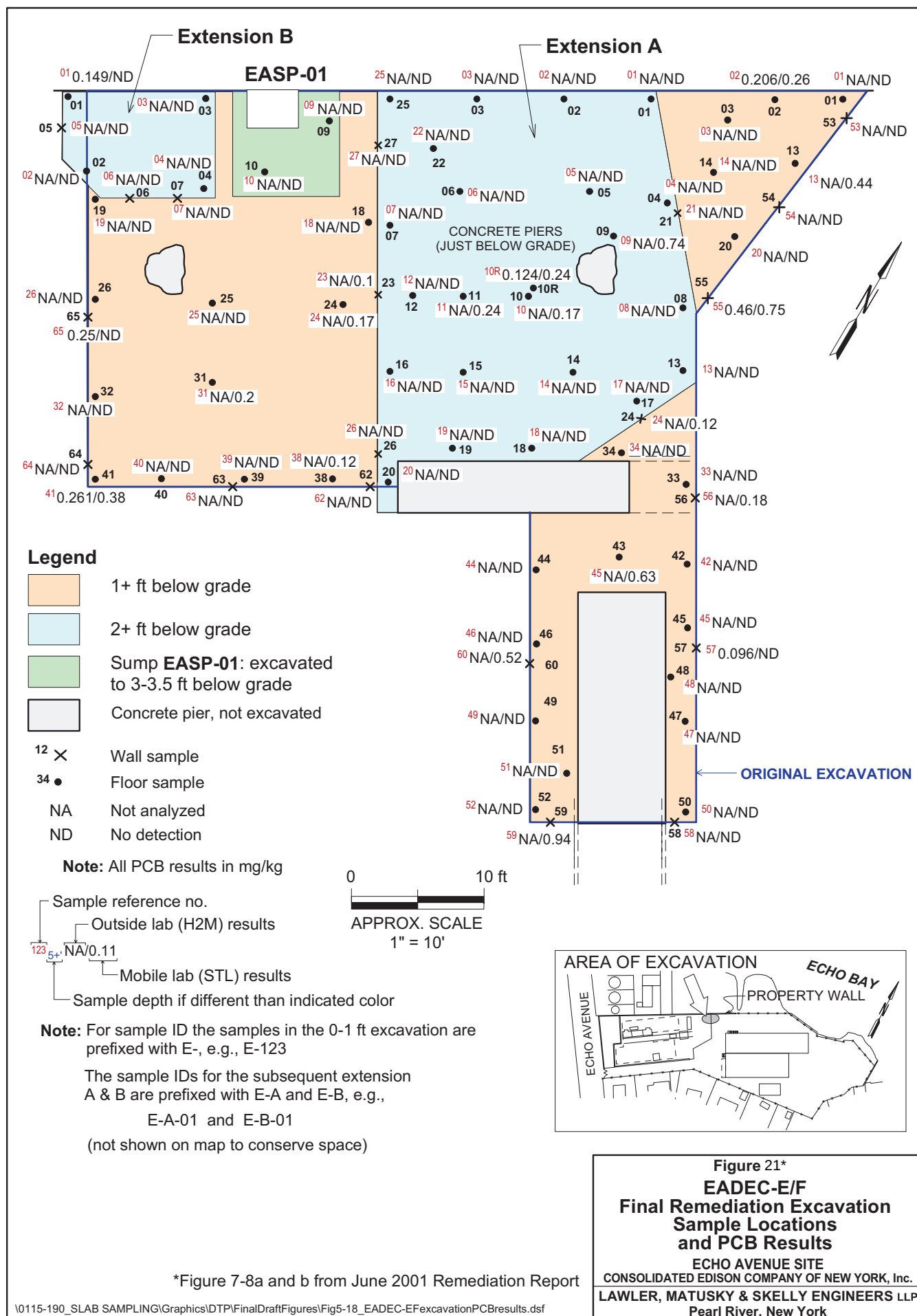


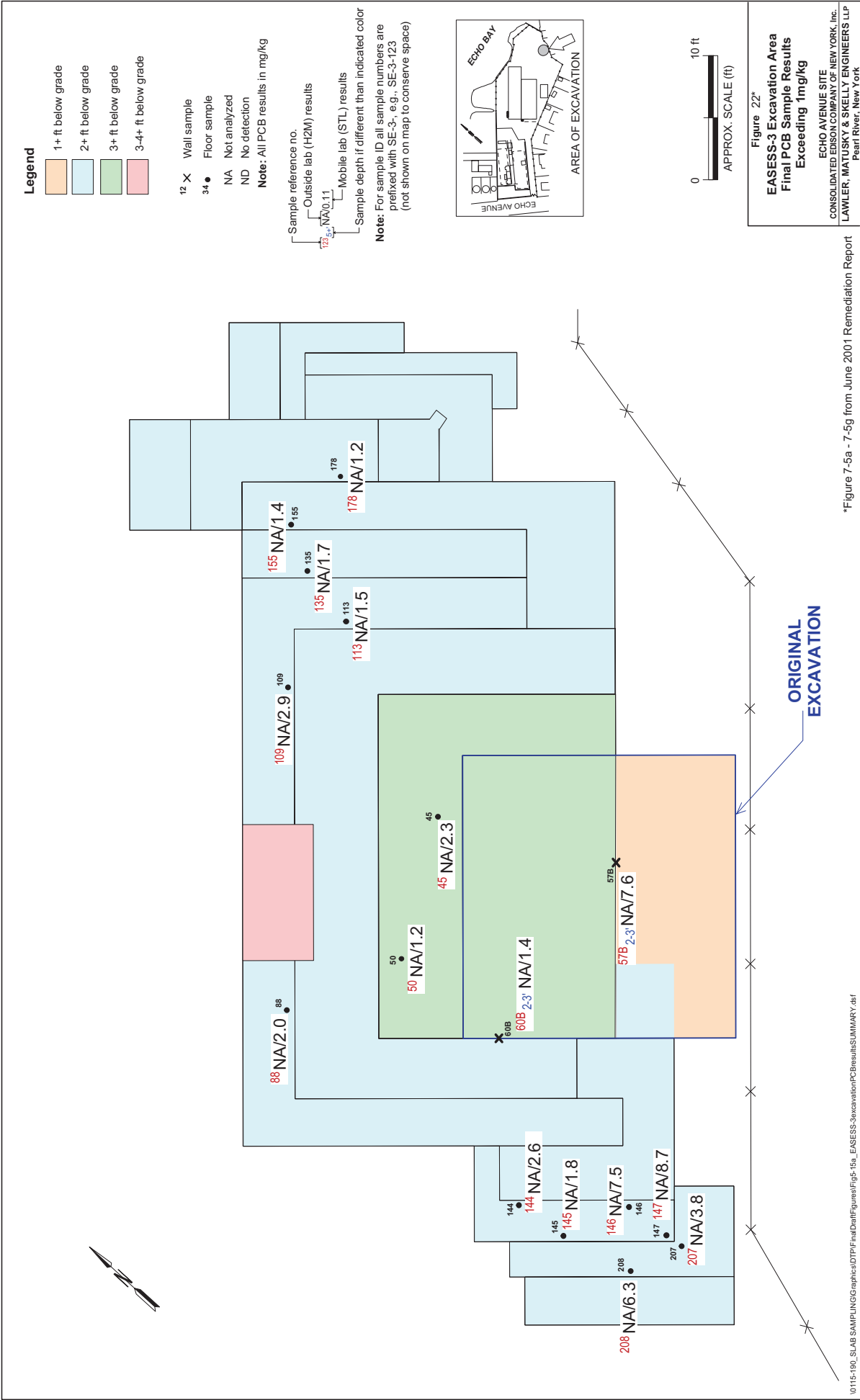
Figure 20*

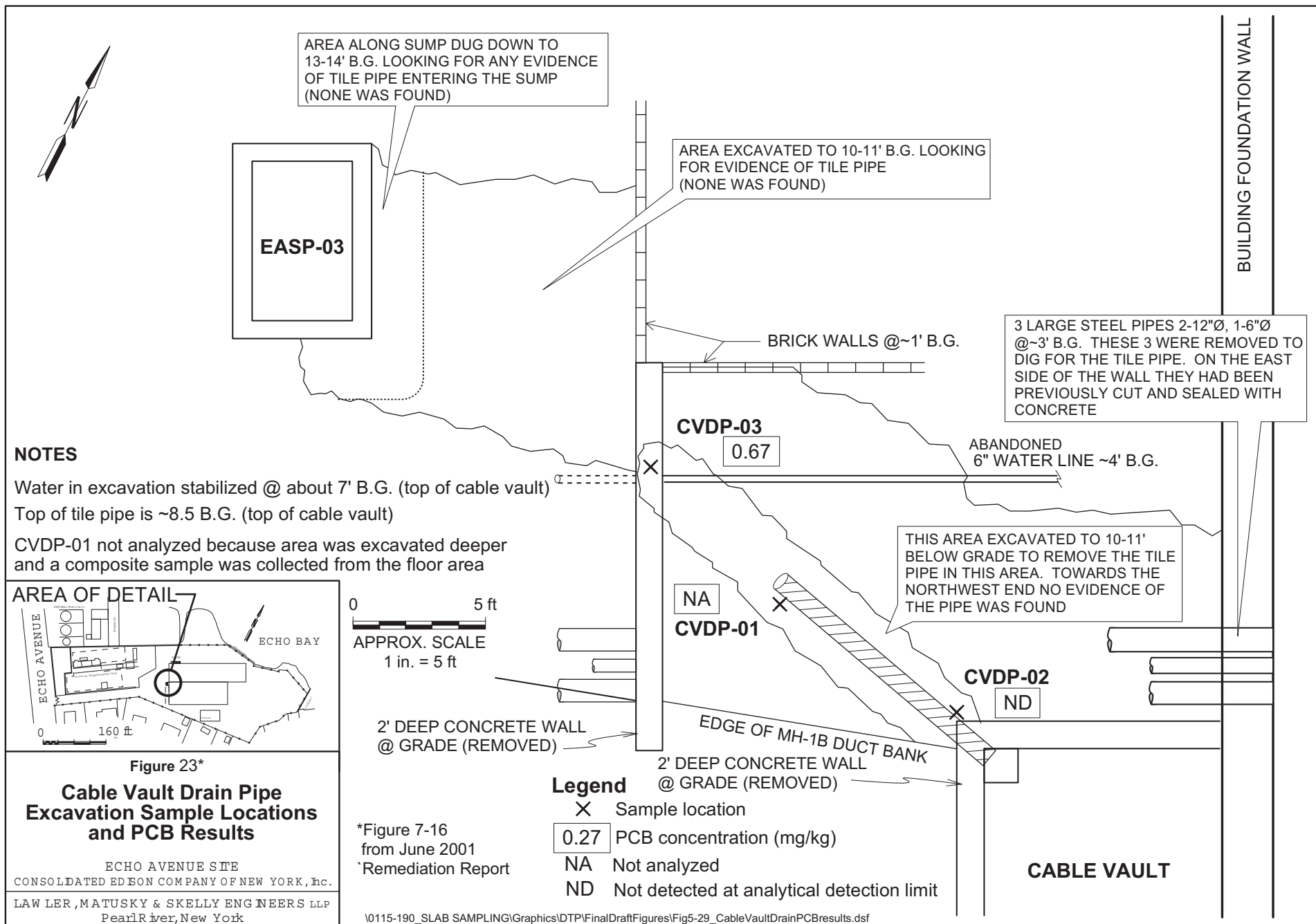
PCB Concentrations at NYSDEC Shallow Soil Sample Locations

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
 Pearl River, New York

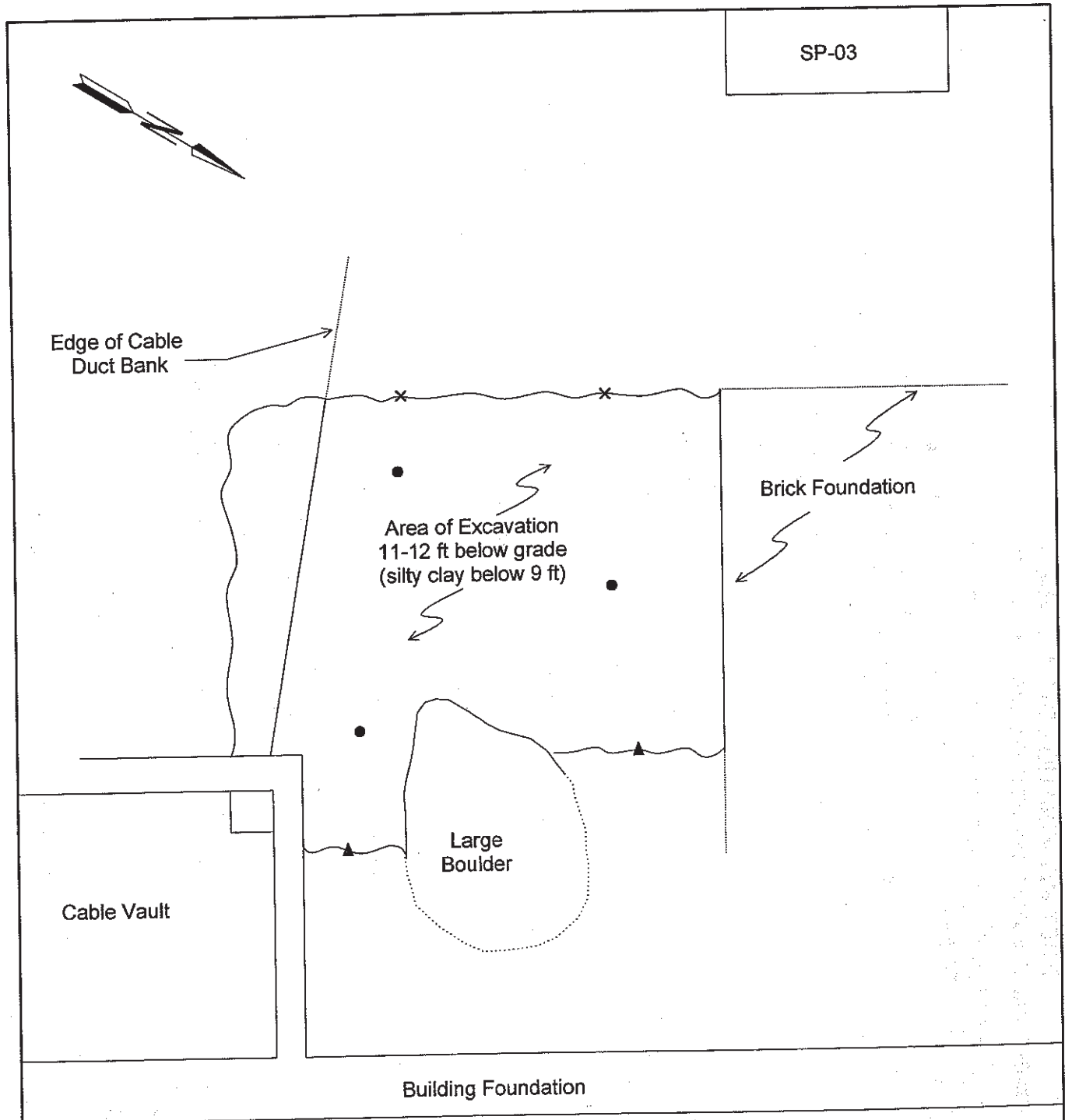
*Figure 4-19 from February 1993 Phase II Investigation Report







SP-03

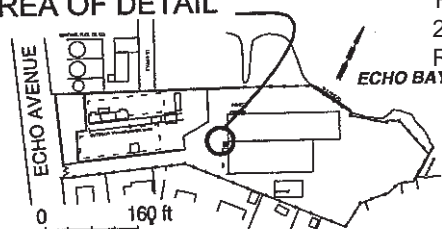


- = CVDP-04 : Composite sample of 3 floor locations.
- ▲ = CVDP-05 : Composite sample of 2 wall locations from ~6 to 9 ft below grade.
(fill above the silty clay layer)
- x = CVDP-06 : Composite sample of 2 wall locations from ~6 to 9 ft below grade.
(fill above the silty clay layer)

0 5 ft
Approximate Scale
1 in = 5 ft

/115185 cable vault samples.dsf

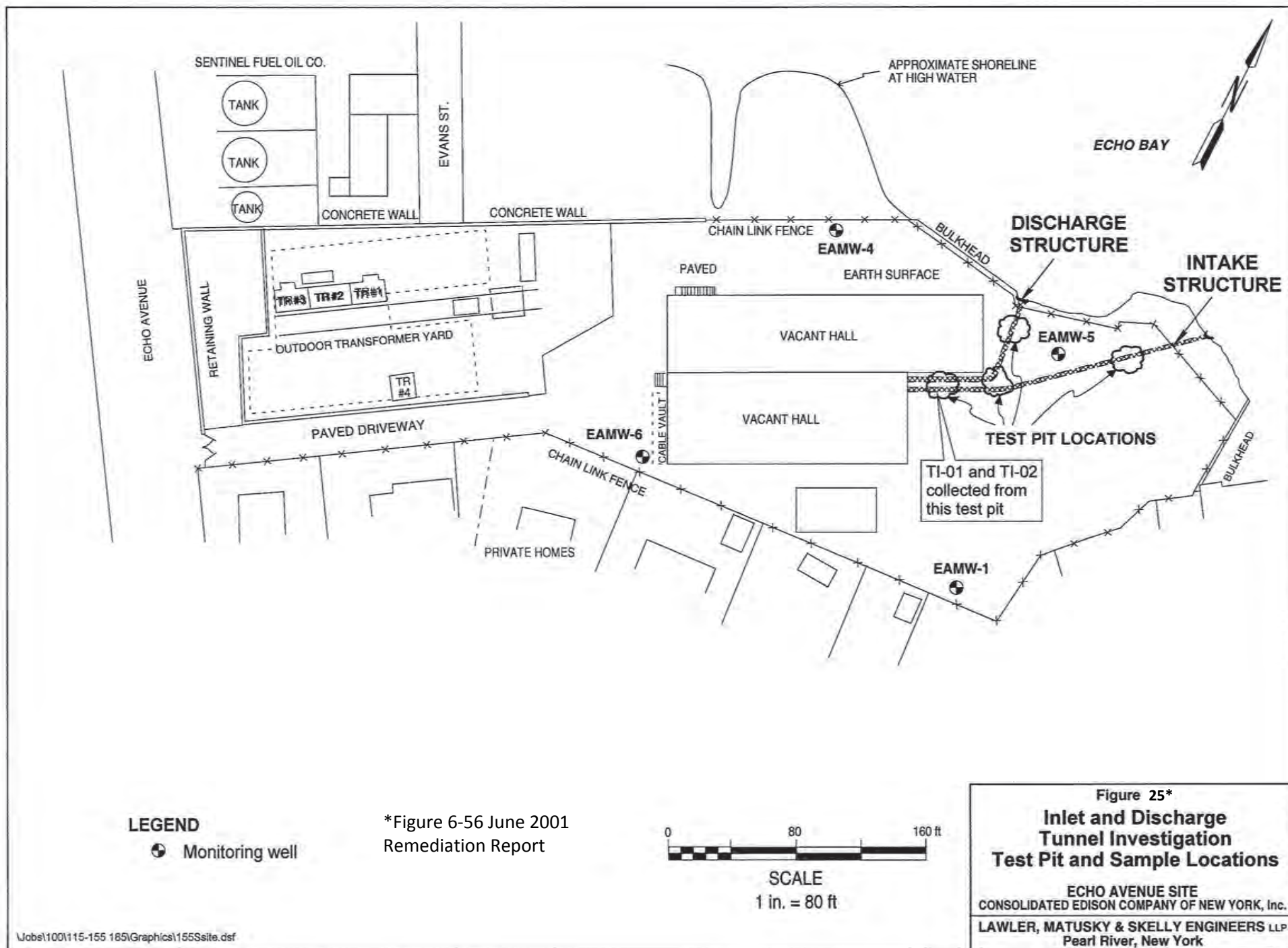
AREA OF DETAIL



*Figure 7-17 June
2003 Remediation
Report

Figure 24* Cable Vault Drain Pipe Excavation Extension Sample Locations

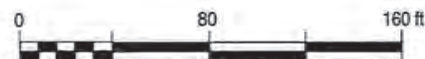
ECHO AVENUE SITE
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Pearl River, New York



LEGEND

Monitoring well

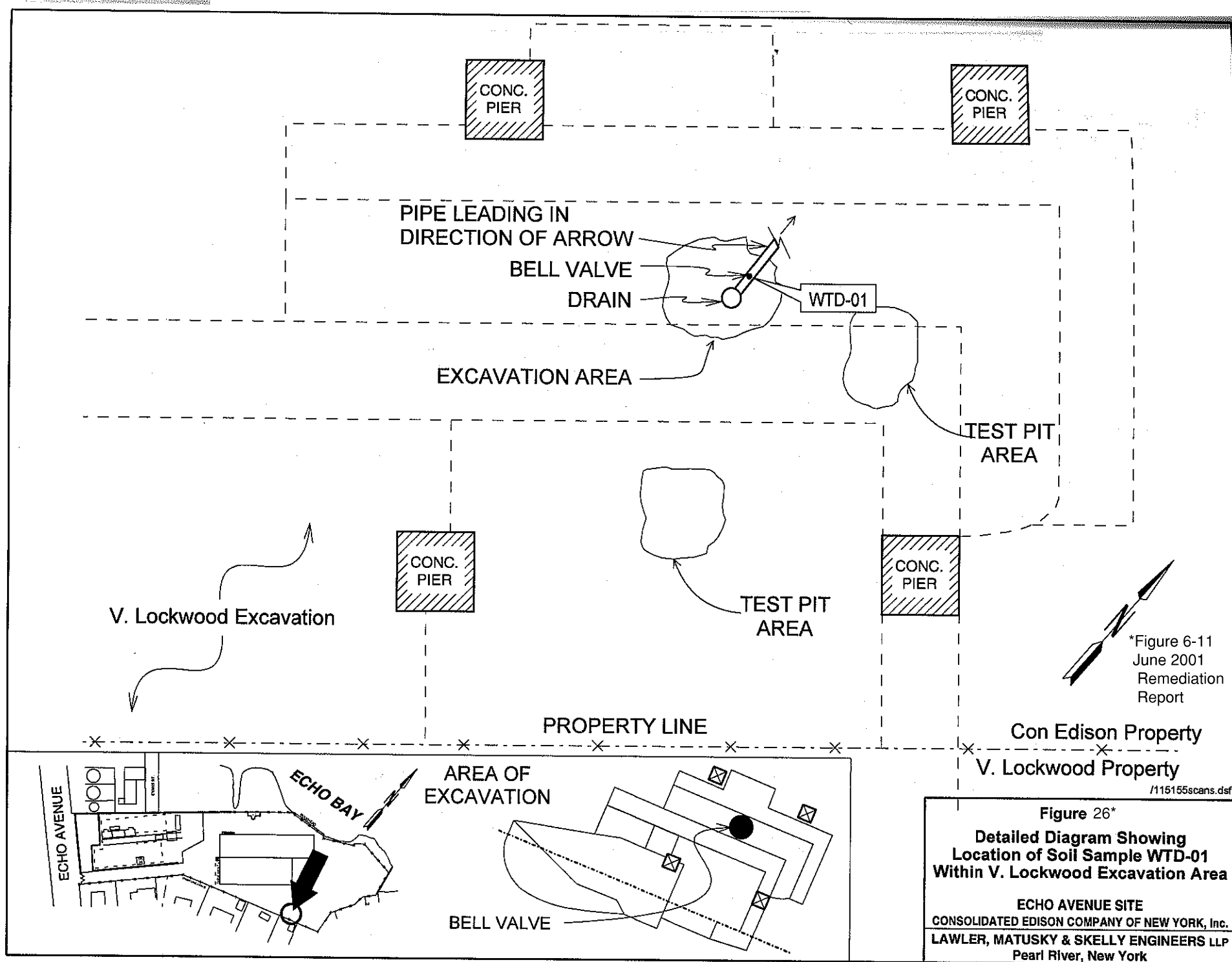
*Figure 6-56 June 2001
Remediation Report

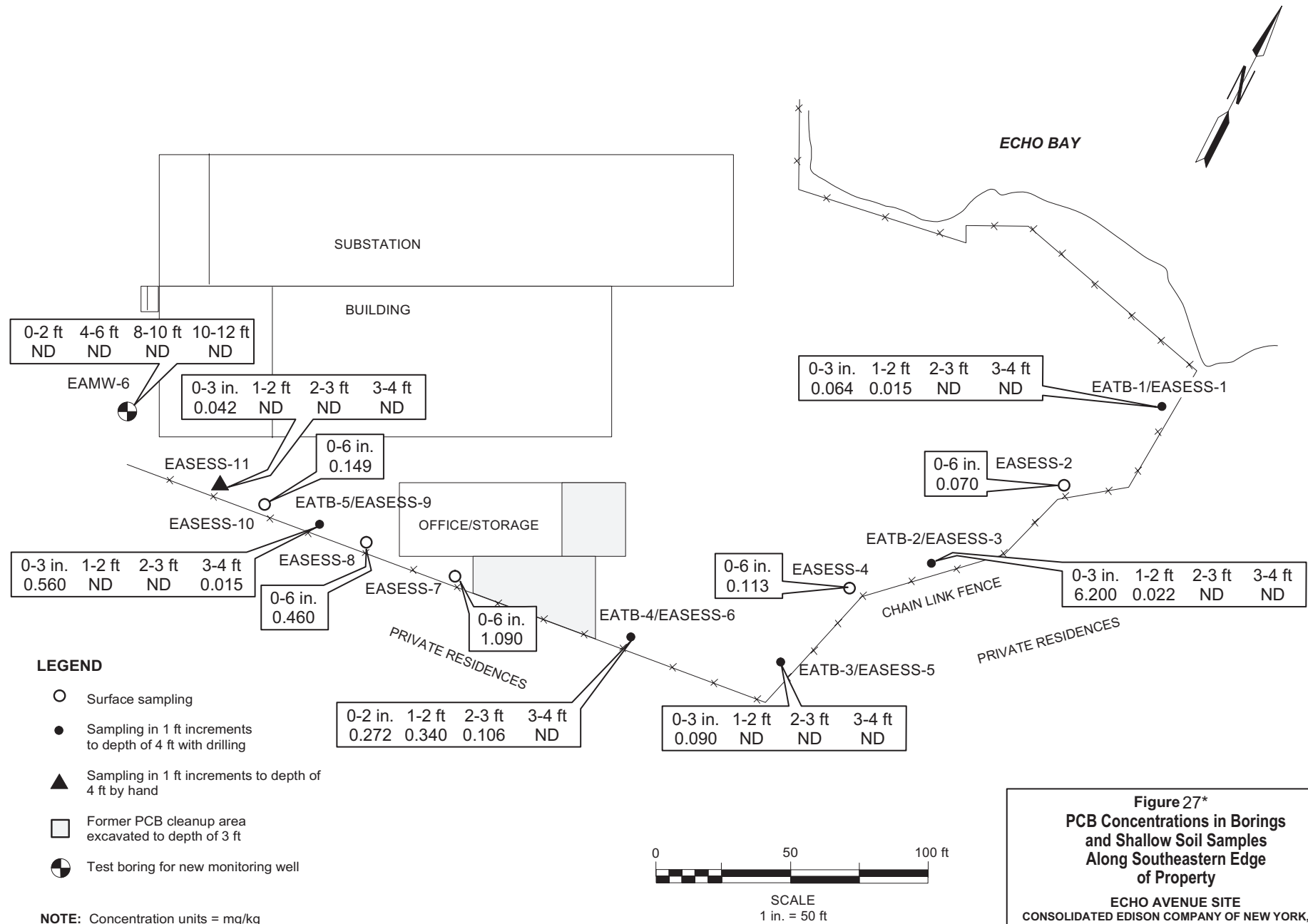


SCALE
1 in. = 80 ft

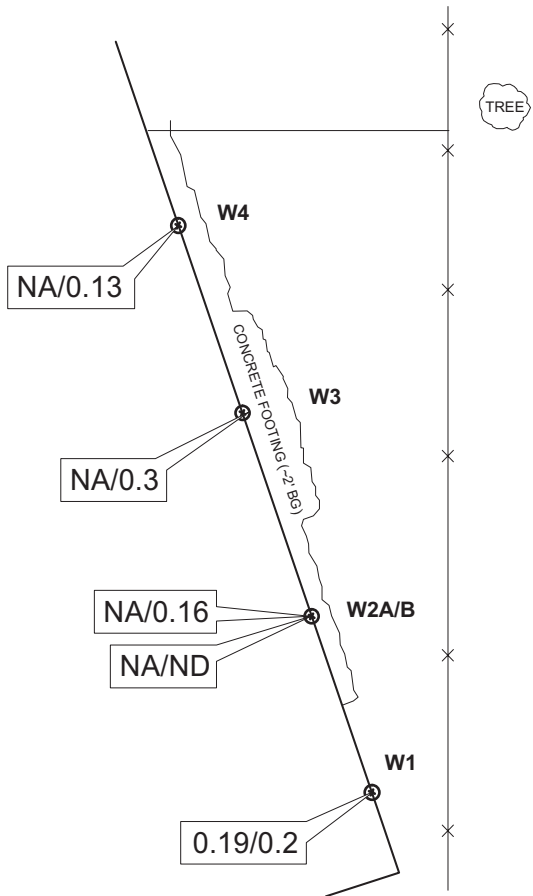
Figure 25*
Inlet and Discharge
Tunnel Investigation
Test Pit and Sample Locations

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

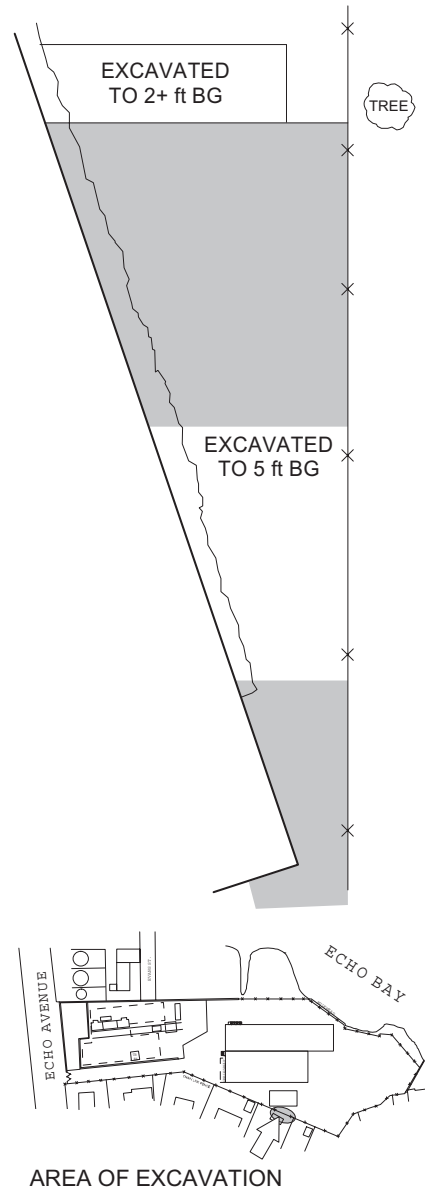




EASESS-7 (Concrete Samples From Building Foundation)



EASESS-7 (East End Extension and Deep Pipe Area)



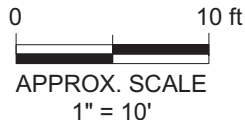
- Floor sample
- × Wall sample
- ⊙ Concrete wall sample
- A** Designates wall sample from above 2 ft
- B** Designates wall sample from below 2 ft

0.27/0.44

Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed
ND Not detected at analytical detection limit

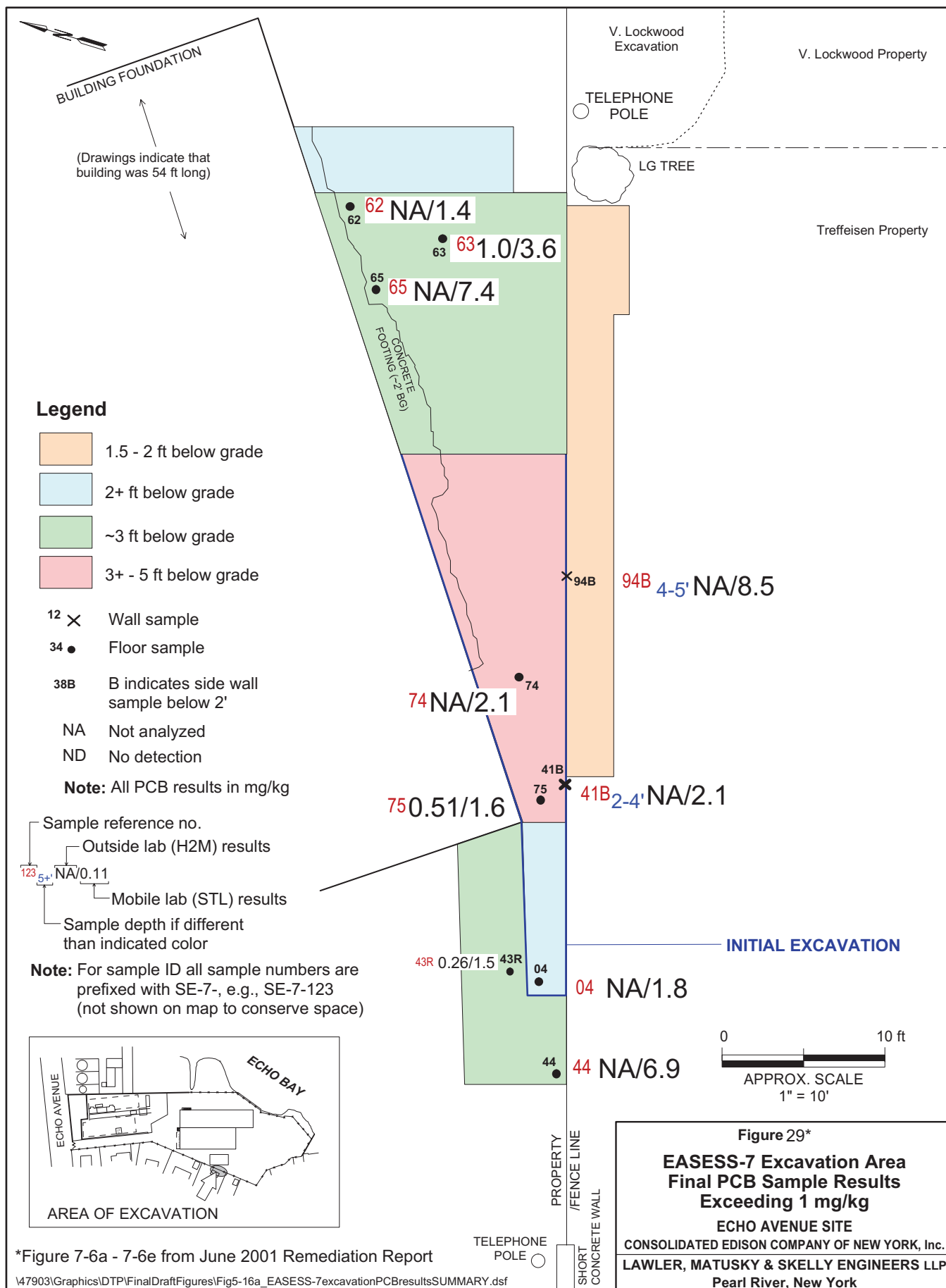
NOTE: For sample ID all sample numbers are prefixed with SE-7- e.g. **SE-7-21**



*Figure 7-7 from June 2001 Remediation Report

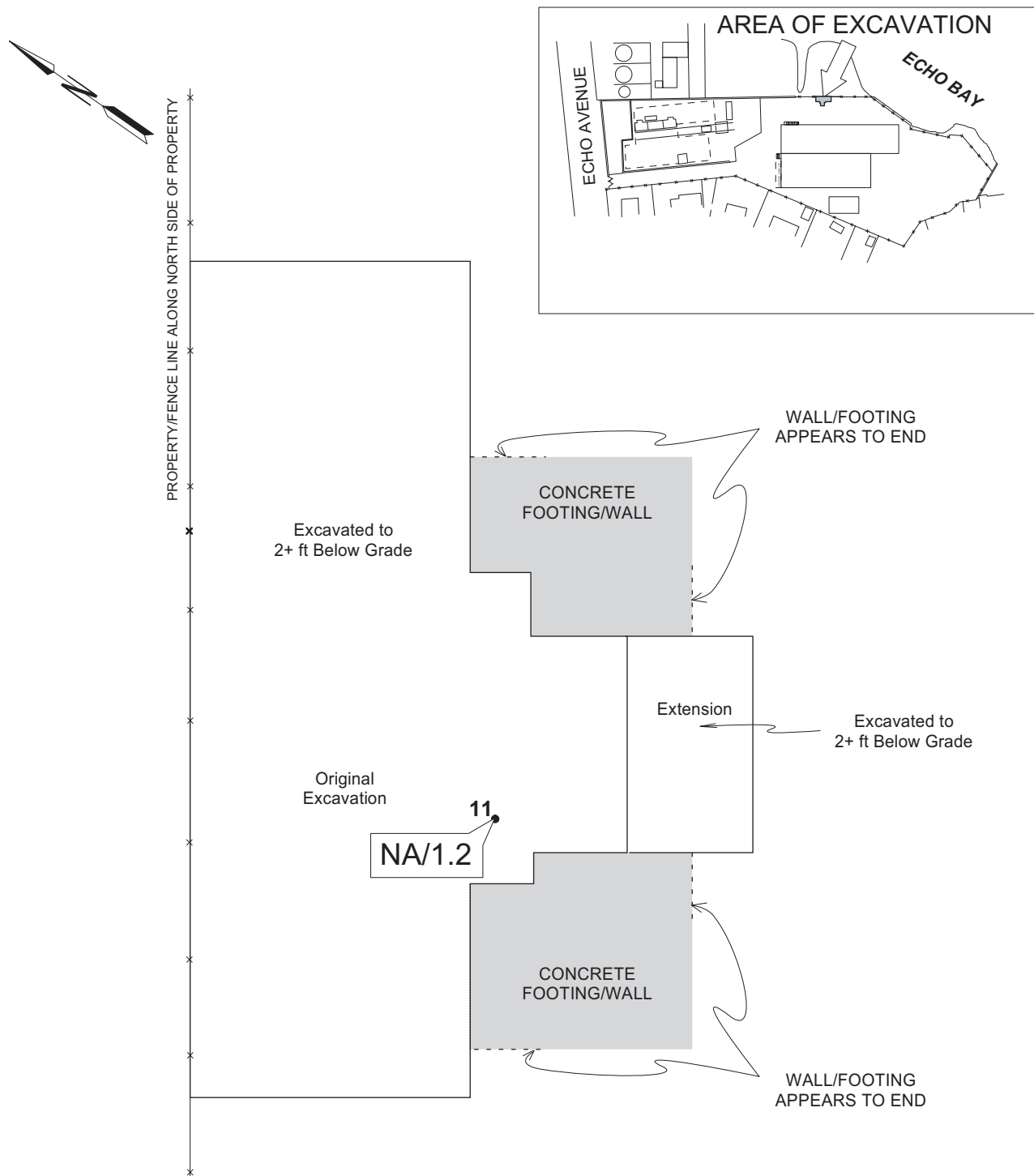
Figure 28* EASESS-7 Final Remediation Excavation Concrete Sample Locations and PCB Results

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Pearl River, New York



*Figure 7-6a - 7-6e from June 2001 Remediation Report

V:\7903\Graphics\DTPI\FinalDraftFigures\Fig5-16a_EASESS-7excavationPCBresultsSUMMARY.dsf



Legend

- Floor sample
- × Wall sample
- B Side wall sample below 2 ft

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed
ND Not detected at
analytical detection limit

0 5 ft
APPROX. SCALE
1" = 5'

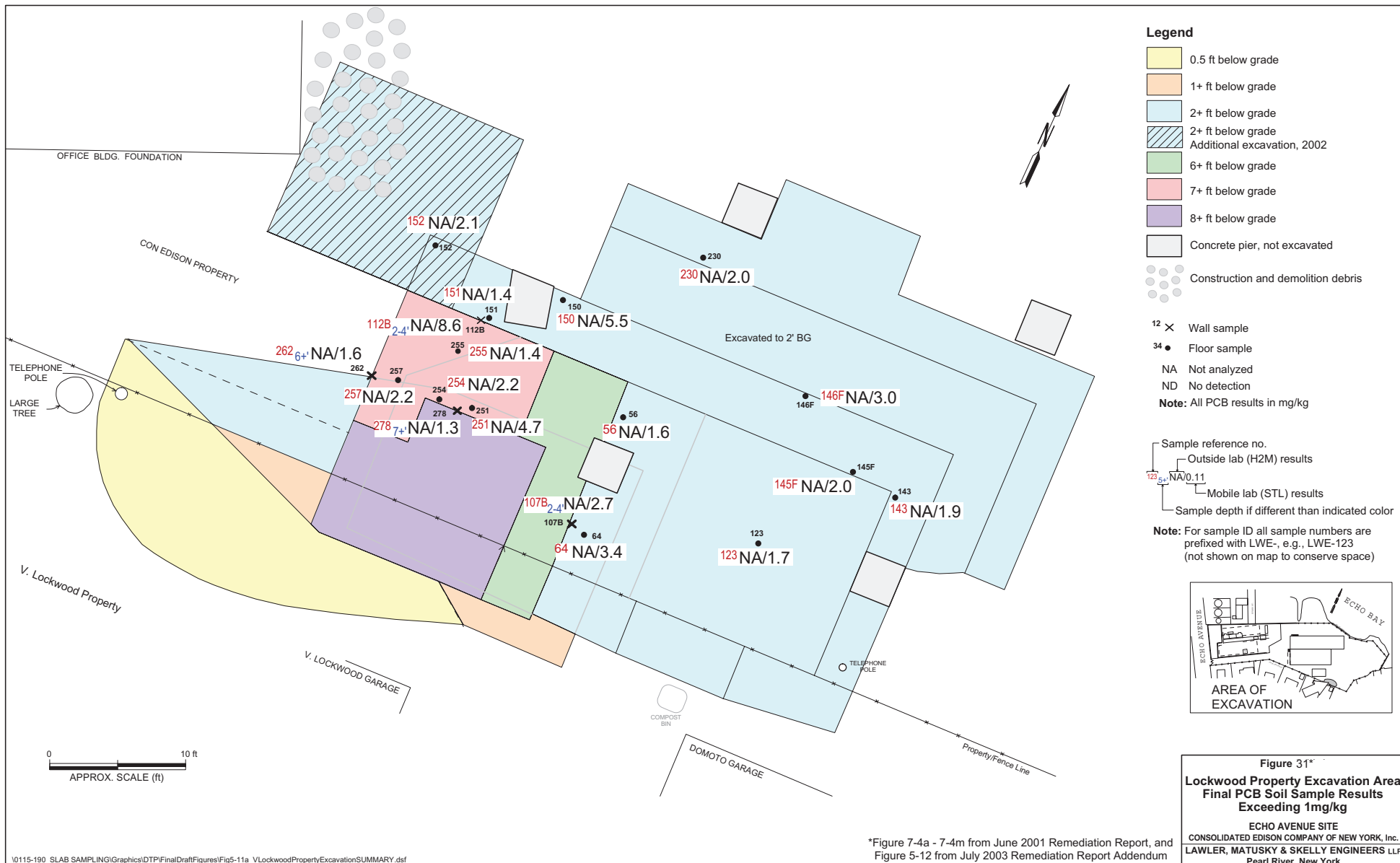
NOTE:

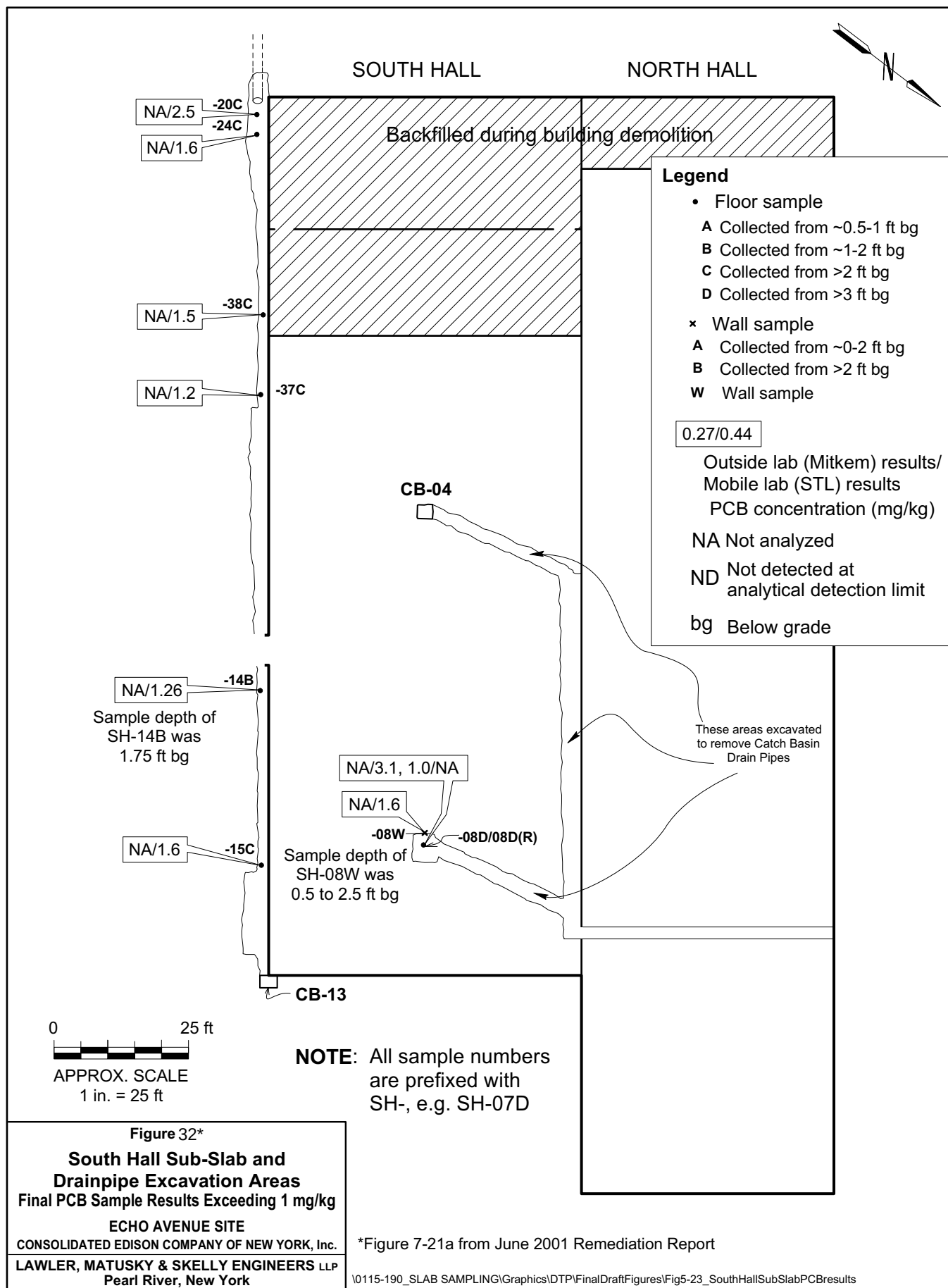
For sample ID all sample numbers
are prefixed with B-3- e.g. B-3-01

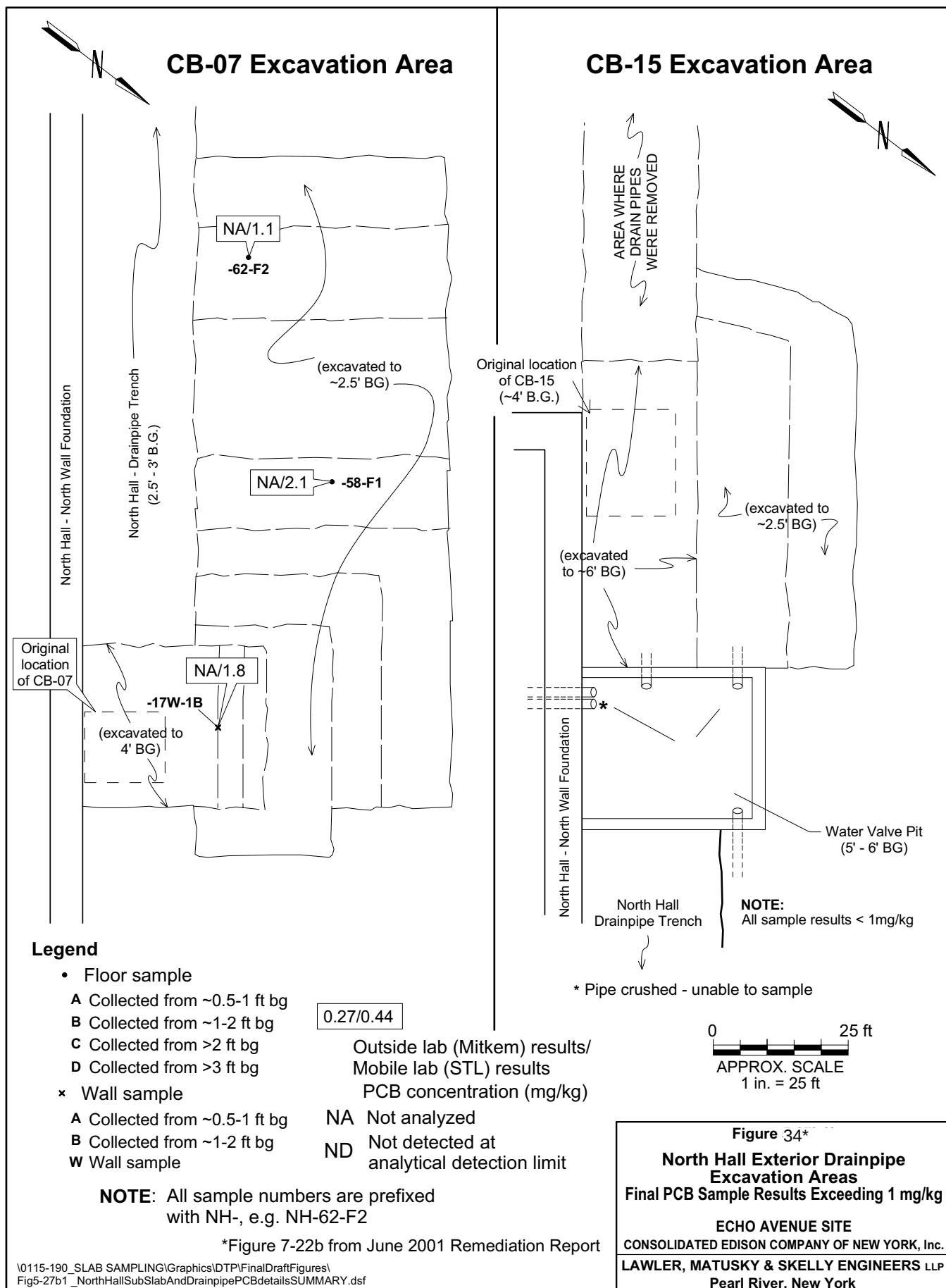
Figure 30*
**B-3 Excavation Area
Final PCB Sample Results
Exceeding 1 mg/kg**

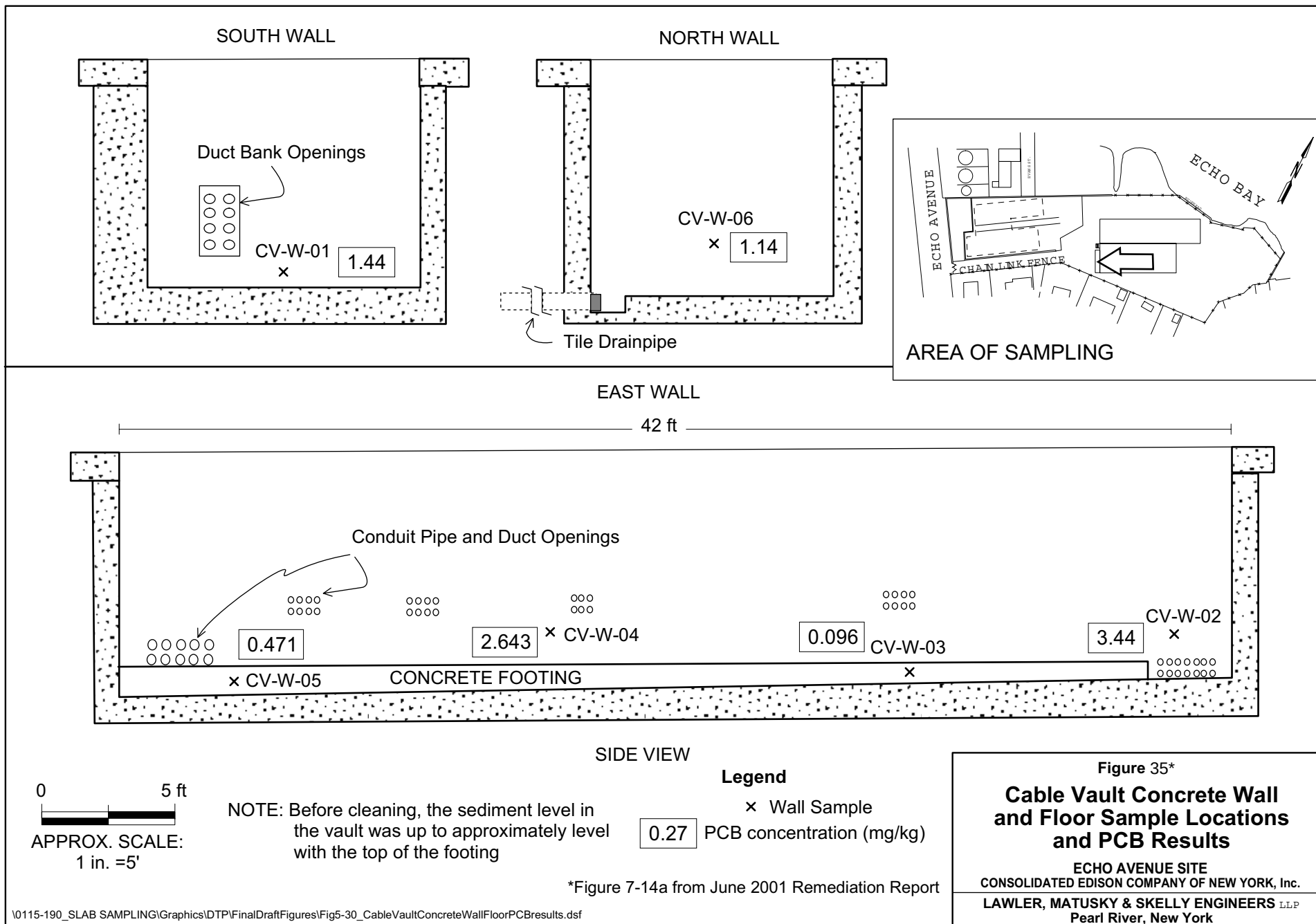
ECHO AVENUE SITE
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Pearl River, New York

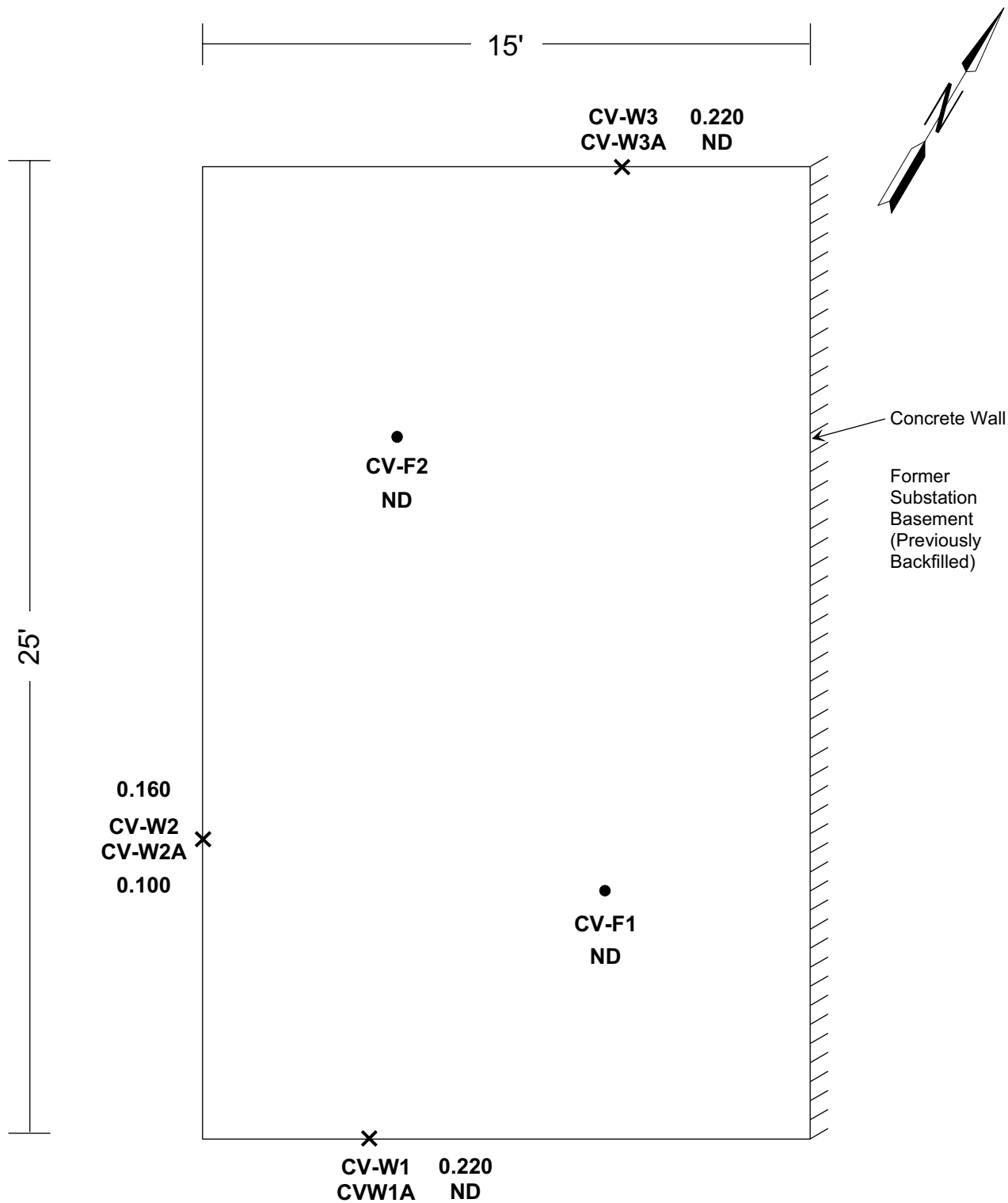
*Figure 7-9 from June 2001 Remediation Report











Legend

- X Wall Sample
- Floor Sample

Note: All Results in mg/kg

NOT TO SCALE

NOTE: CV-W1, -W2, and -W3 taken from 0-2 ft depth

CV-W1A, -W2A, and -W3A taken from 2-6 ft depth

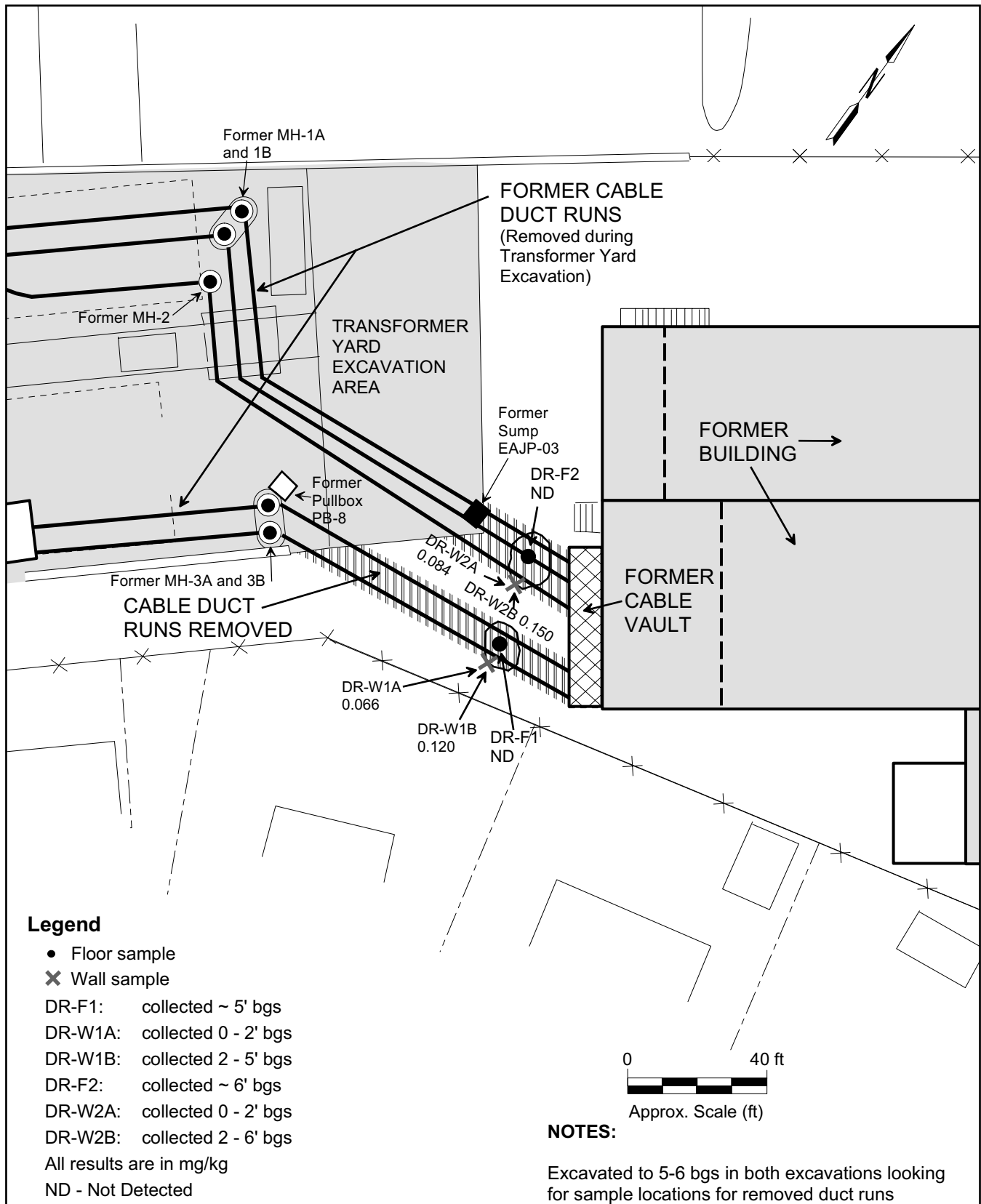
CV-F1 and -F2 taken from 6 ft depth

Figure 36*

Cable Vault Excavation Confirmatory PCB Soil Sample Results

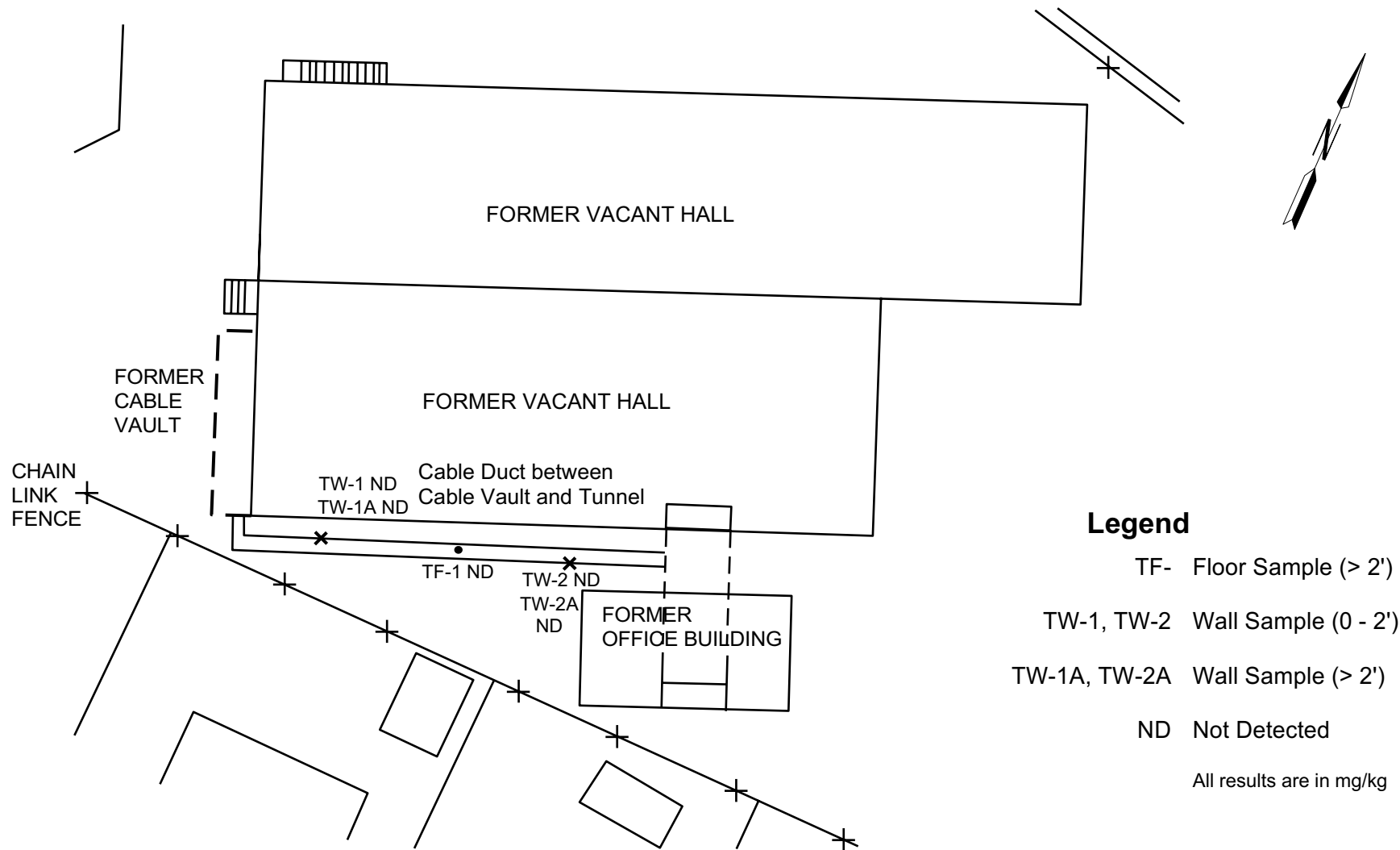
ECHO AVENUE SITE
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Pearl River, New York

*Figure 5-8 from July 2003 Remediation Report Addendum



V0115-190_SLAB SAMPLING\Graphics\DTPI\FinalDraftFigures\
 Fig5-36_CableDuctBankAddtlSoilResults.dsf

*Figure 5-6 from July 2003 Remediation Report Addendum



*Figure 5-7 from July 2003 Remediation Report Addendum

Figure 38*

**Tunnel Cable Duct
Confirmatory PCB
Soil Sample Results**

ECHO AVENUE SITE
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CB-C

NOTES

Excavation

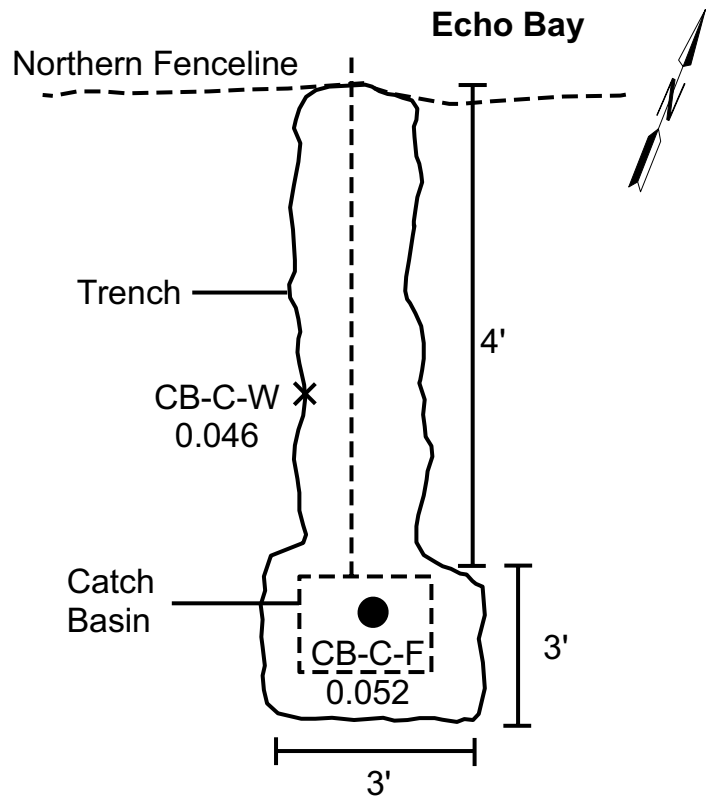
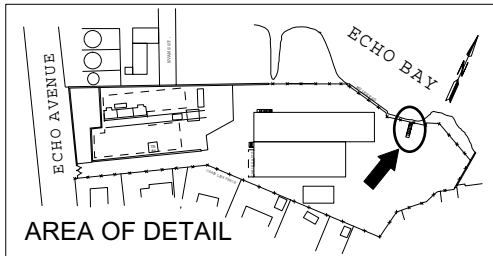
Depth of Catch Basin $\approx$ 3 ft.

Depth of Trench = 2 ft.

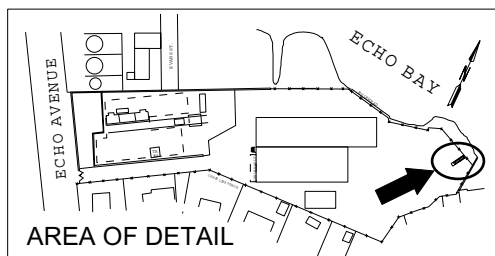
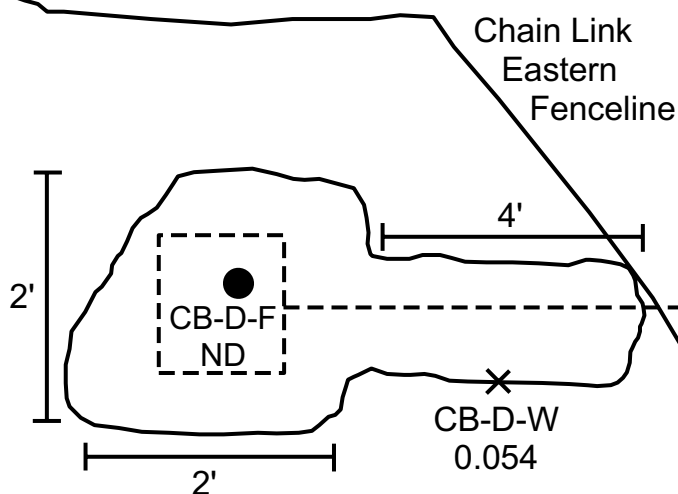
● Floor Sample (> 3 ft.)

× Wall Sample (0 - 2 ft.)

All results are in mg/Kg



CB-D



NOTES

Excavation

Depth of Catch Basin = 2 ft.

Depth of Trench = 2 ft.

● Floor Sample (2 ft.)

× Wall Sample (0 - 2 ft.)

ND Not Detected

All results are in mg/kg

Figure 39*

CB-C and CB-D Confirmatory PCB Soil Sample Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 5-9 from July 2003 Remediation Report Addendum

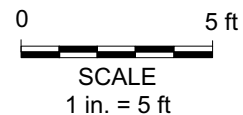
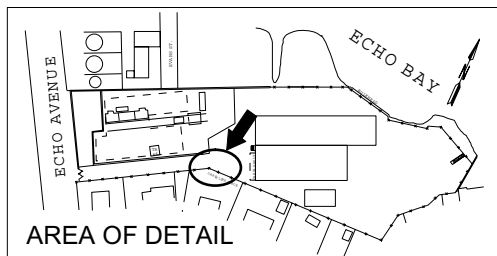
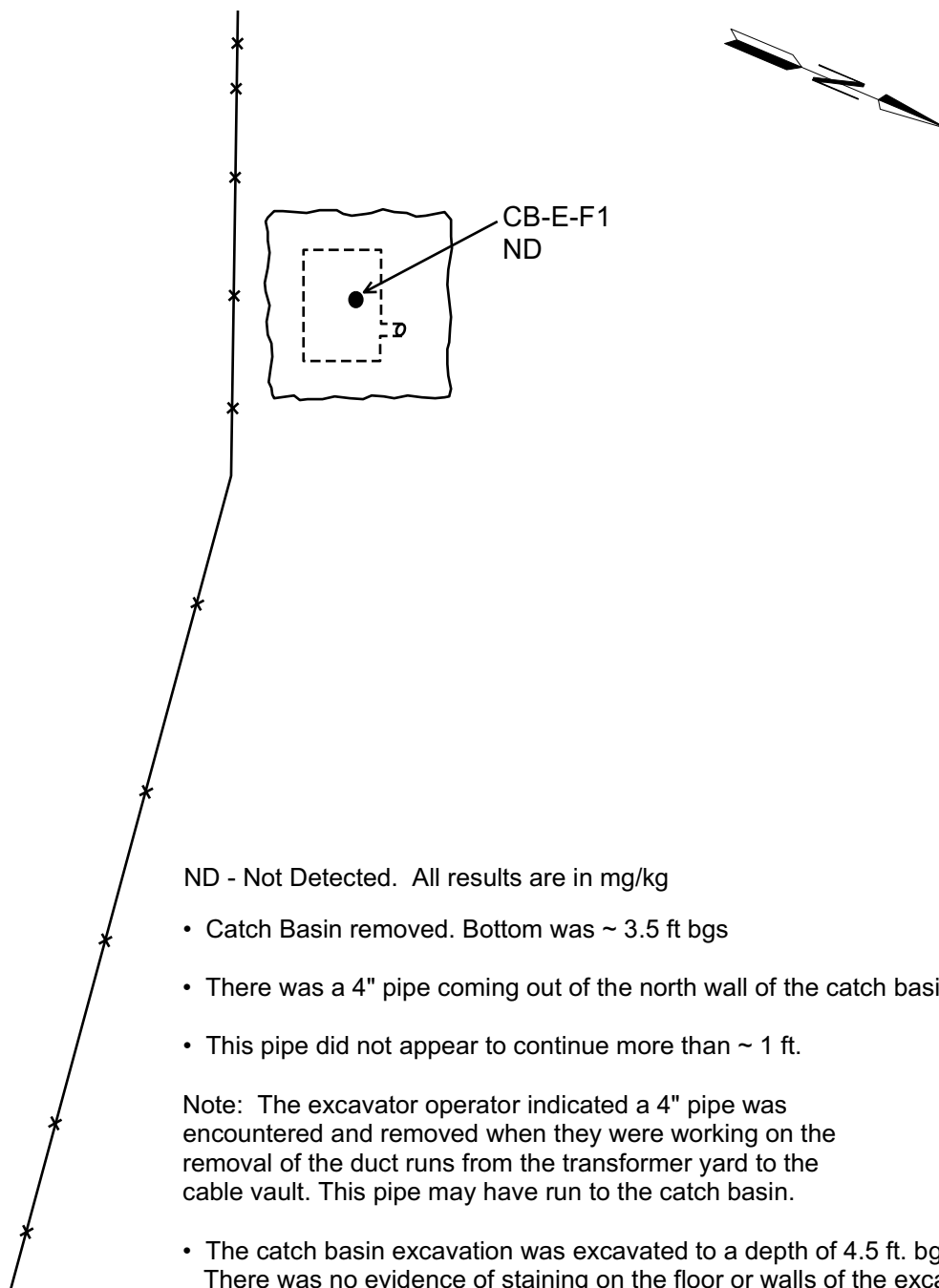
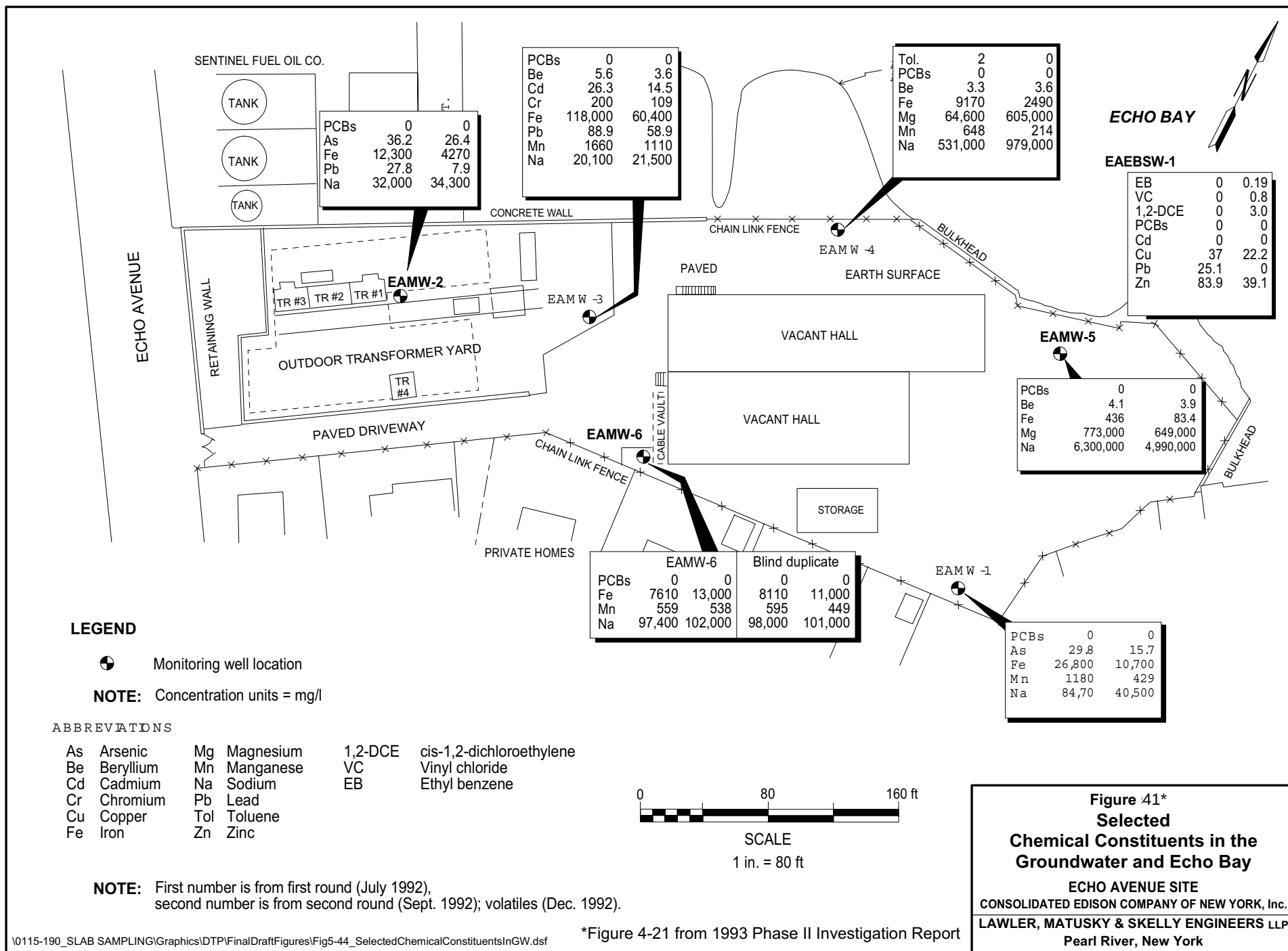


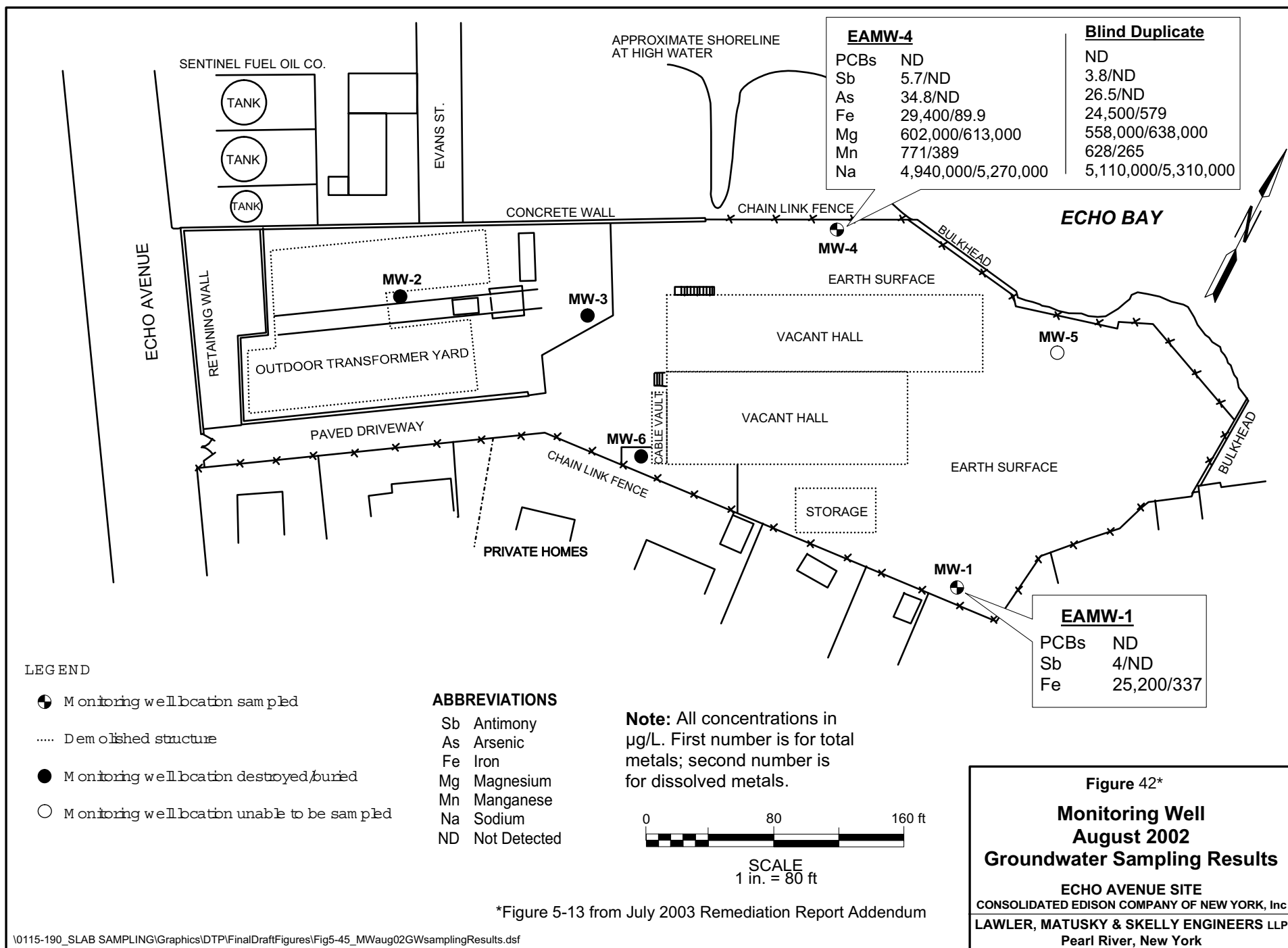
Figure 40*

CB-E Confirmatory PCB Soil Sample Result

ECHO AVENUE SITE
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Pearl River, New York

*Figure 5-11 from July 2003 Remediation Report Addendum





*Figure 5-13 from July 2003 Remediation Report Addendum



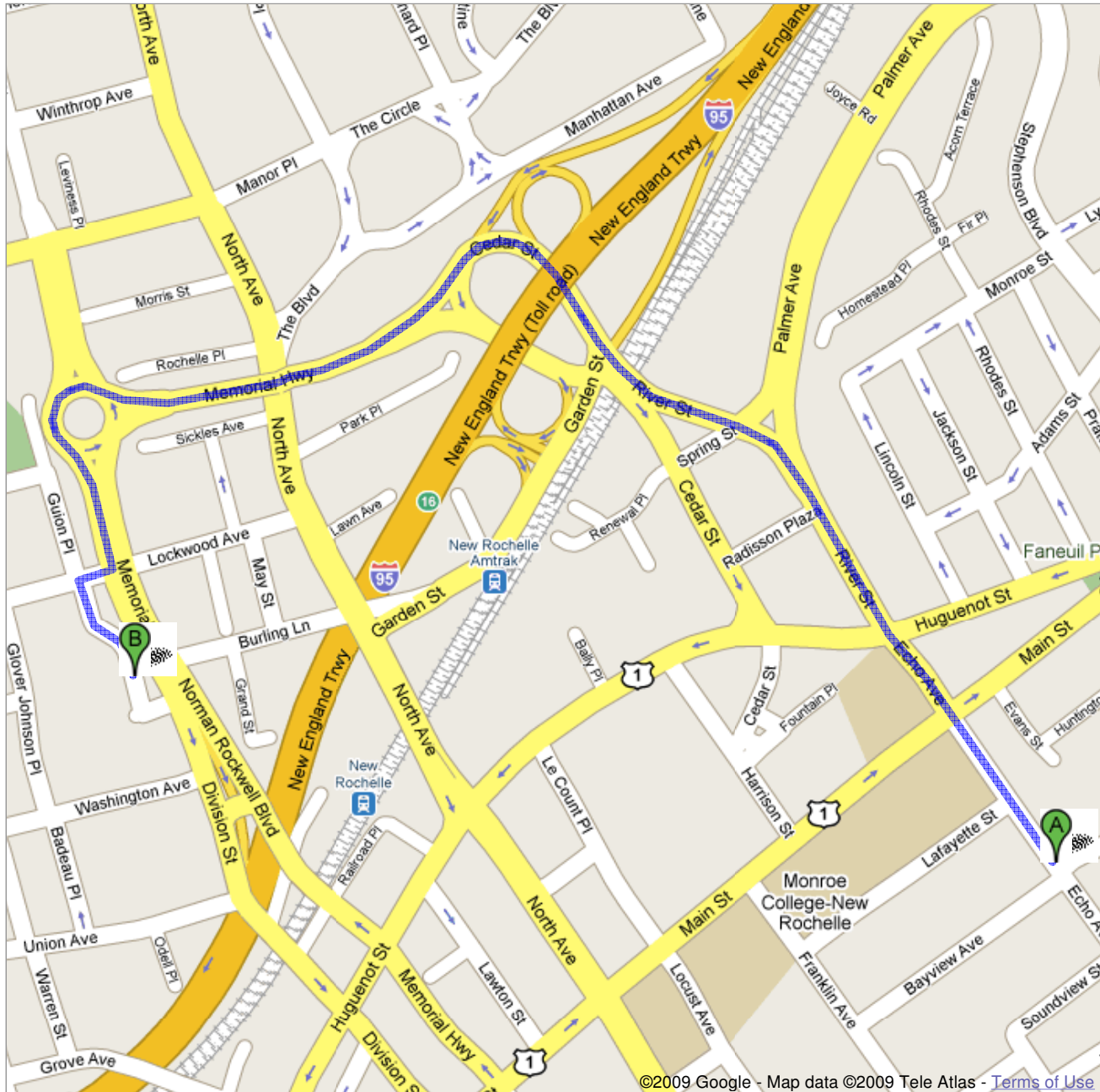
W0115-190_SLAB SAMPLING\Graphics\DTPI\FinalDraftFigures\Fig10_KnownUndergroundStructuresRemainingOnSite.des



FIGURE 45
ROUTE TO SOUTH SHORE MEDICAL CENTER



Directions to 16 Guion Pl, New Rochelle, NY 10801
1.2 mi – about 4 mins



Echo Avenue

NEW ROCHELLE, WESTCHESTER COUNTY, NEW YORK

Site Management Plan

TABLES

TABLE 1 (Page 1 of 3)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SHALLOW SOIL SAMPLE DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EADEC-B (0-6 in.)	EADEC-D (0-6 in.)	EADEC-E (0-6 in.)	RE/DL EADEC-E (0-6 in.)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED- RESIDENTIAL SOIL CLEANUP OBJECTIVE
VOLATILE ORGANICS (mg/kg)	ND	ND	ND	ND		NA	NA
SEMIVOLATILE ORGANICS (mg/kg)							
Naphthalene	ND	0.130j	ND	♦	13	NA	100 ^c
2-Methylnaphthalene	ND	ND	0.240j	♦	36.4	NA	NA
Phenanthrene	ND	ND	0.66	♦	50.0 ***	NA	100 ^c
Anthracene	ND	ND	0.220j	♦	50.0 ***	NA	100 ^c
Fluoranthene	0.180j	0.120j	1.5	♦	50.0 ***	NA	100 ^c
Pyrene	0.160j	0.110j	1.6	♦	50.0 ***	NA	100 ^c
Benzo(a)anthracene	ND	ND	1.0	♦	0.224 or MDL	NA	1 ^e
Chrysene	ND	ND	1.2	♦	0.4	NA	3.9
bis(2-Ethylhexyl)phthalate	0.200j	0.250j	0.450j	♦	50.0 ***	NA	NA
Benzo(b)fluoranthene	ND	ND	1.1	♦	1.1	NA	1 ^e
Benzo(k)fluoranthene	ND	ND	0.640	♦	1.1	NA	3.9
Benzo(a)pyrene	ND	ND	1.0	♦	0.061 or MDL	NA	1 ^e
Indeno(1,2,3-c,d)pyrene	ND	ND	ND	0.510j	3.2	NA	0.5 ^e
Benzo(g,h,i)perylene	ND	ND	ND	0.52	50.0 ***	NA	100 ^c
PESTICIDES/PCBs (mg/kg)							
Heptachlor epoxide	ND	ND	0.016px	ND	0.02	NA	NA
Endosulfan I	ND	ND	0.036pxe	ND	0.9	NA	24 ^g
Dieldrin	ND	ND	0.10xe	ND	0.044	NA	0.2
4,4'-DDE	0.0018jp	ND	ND	ND	2.1	NA	8.9
Endrin	ND	ND	0.095px	ND	0.10	NA	11
Endosulfan II	ND	ND	0.098pxe	ND	0.9	NA	24 ^g
4,4'-DDD	ND	ND	0.021x	ND	2.9	NA	13

TABLE 1 (Page 2 of 3)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SHALLOW SOIL SAMPLE DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EADEC-B (0-6 in.)	EADEC-D (0-6 in.)	EADEC-E (0-6 in.)	RE/DL EADEC-E (0-6 in.)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED- RESIDENTIAL SOIL CLEANUP OBJECTIVE
PESTICIDES/PCBs (mg/kg) (Continued)							
4,4'-DDT	ND	ND	0.049px	ND	2.1	NA	7.9
Methoxychlor	ND	ND	0.073pxe	ND	***	NA	NA
Endrin ketone	ND	ND	0.017jpx	ND	NA	NA	NA
Endrin aldehyde	ND	ND	0.025pxe	ND	NA	NA	NA
Endosulfan sulfate	ND	ND	0.075pxe	ND	1.0	NA	24 ^g
α-Chlordane	0.0016j	ND	ND	ND	0.54	NA	4.2
β-Chlordane	0.0019p	ND	0.043px	ND	0.54	NA	NA
Aroclor 1254	ND	ND	8.2	12.0	1.0/10*	NA	1
Aroclor 1260	0.42	ND	ND	ND	1.0/10*	NA	1
METALS (mg/kg)							
Aluminum	4,060	8,800	7,460	♦	SB	33,000	NA
Antimony	4.0	20.3	8.0 B	♦	SB	0.6 - 10 (n)	NA
Arsenic	6.8 SA	91.5 SA	4.9	♦	7.5 or SB	3.0 - 12.0 æ	16 ^e
Barium	161	216	124	♦	300 or SB	15 - 600	400
Beryllium	2.4	1.5	1.2 B	♦	0.16 or SB	0 - 1.75	72
Cadmium	1.4	1.7	7.6	♦	1 or SB	0.1 - 1.0	4.3
Calcium	128,000	56,200	36,700	♦	SB	130 - 35,000 æ	NA
Chromium	9.8	25.6	85.4	..	10 or SB	1.5 - 40.0 æ	hexavalent ^f - 110 trivalent ^f - 180
Cobalt	4.2	6.9 B	6.7 B	♦	30 or SB	2.5 - 60.0 æ	NA
Copper	16.7	101	160	♦	25 or SB	1.0 - 50.0	270
Iron	8,630	15,300	14,600	♦	2,000 or SB	2,000 - 550,000	NA
Lead	105 N SA	279 N	2030 N	♦	SB**	4.0 - 61 or 200 - 500**	400
Magnesium	61,700	28,100	7,780	♦	SB	100 - 5,000	NA
Manganese	152	375	332	♦	SB	50 - 5,000	2000 ^e
Mercury****	0.13 N	1.2 N	0.44 N	♦	0.1	0.001 - 0.2	0.81 ⁱ

TABLE 1 (Page 3 of 3)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SHALLOW SOIL SAMPLE DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EADEC-B (0-6 in.)	EADEC-D (0-6 in.)	EADEC-E (0-6 in.)	RE/DL EADEC-E (0-6 in.)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED- RESIDENTIAL SOIL CLEANUP OBJECTIVE
METALS (mg/kg) (Continued)							
Nickel	8.5	14.7	34.3	♦	13 or SB	0.5 - 25	310
Potassium	1,670	1,940	887 B	♦	SB	8,500 - 43,000 æ	NA
Selenium	ND W	ND	ND W	♦	2 or SB	0.1 - 3.9	180
Silver	ND	ND	ND	♦	SB	0.1 - 5.0 (n)	180
Sodium	98.0	190 B	200 B	♦	SB	6,000 - 8,000	NA
Thallium	ND	ND	ND	♦	SB	0.1 - 0.8 (q)	NA
Vanadium	13.2	29.0	35.9	♦	150 or SB	1.0 - 300	NA
Zinc	51.7	278	1,640	♦	20 or SB	9.0 - 50	10000 ^d
Cyanide	ND	ND	ND	♦	****	N/A	27 ⁱ

Note : Numbers in bold exceed TAGM 4046 recommended cleanup objectives.

: Numbers in italics exceed restricted residential soil cleanup objectives (Part 375).

♦ - Not analyzed.

*** - As per TAGM #4046, total VOCs < 10 ppm.,
total SVOCs < 500 ppm, individual SVOCs < 50 ppm, and
total Pesticides < 10 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

b - Found in associated blanks.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to
200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and
hence are very unstable. Site-specific form(s) of Cyanide should be taken into
consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowman, H.J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but
greater than the instrument detection limit.

ND - Not detected at analytical detection limit.

SB - Site background.

SA - Value determined by the method of standard addition.

W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

N - Spike sample recovery is not within control limits.

**** - Mercury results are likely biased low as the MS recovered 30.8%; actual concentration may be greater than those reported.

RE - Re-extracted

DL - Diluted sample

c The Soil objectives (SCOs) for residential, restricted-residential resources use were capped at a maximum value of 100 ppm (mg/kg).

d The SCOs for metals were capped at a maximum value of 10,000 ppm (mg/kg).

e For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background
concentration is used as the Track 2 SCO value for this use of the site.

f The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the species SCO.

g This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

i This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

TABLE 2 (Page 1 of 2)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SOIL BORING DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-6 (0-2 ft)	RE EAMW-6 (0-2 ft)	DL EAMW-6 (0-2 ft)	EAMW-6 (4-6 ft)	EAMW-6 (8-10 ft)	EAMW-6 (10-12 ft)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED-RESIDENTIAL SOIL CLEANUP OBJECTIVE
VOLATILE ORGANICS (mg/kg)									
Methylene chloride	ND	0.002j	•	0.002j	ND	ND	0.1	NA	100 ^c
SEMIVOLATILE ORGANICS (mg/kg)									
Naphthalene	0.82	0.79	0.93j	ND	ND	ND	13	NA	100 ^c
2-Methylnaphthalene	1.5	1.0	1.2 j	ND	ND	ND	36.4	NA	NA
Acenaphthalene	4.0e	3.9e	6.5	ND	ND	ND	41	NA	100 ^c
Acenaphthene	0.25j	0.27j	0.32j	ND	ND	ND	50.0 ***	NA	100 ^c
Dibenzofuran	0.51	0.78	0.83j	ND	ND	ND	6.2	NA	NA
Fluorene	0.9	1.1	2.0	ND	ND	ND	50.0 ***	NA	100 ^c
Phenanthrene	1.7	0.63	1.6j	ND	ND	ND	50.0 ***	NA	100 ^c
Anthracene	8.8e	2.9e	3.3	ND	ND	ND	50.0 ***	NA	100 ^c
Carbazole	0.19j	0.1j	0.25j	ND	ND	ND	-	NA	NA
Fluoranthene	2.9	1.2	3.4	ND	ND	ND	50.0 ***	NA	100 ^c
Pyrene	2.7	2.3	2.4	ND	ND	ND	50.0 ***	NA	100 ^c
Benzo(a)anthracene	4.0e	2.9	4.8	ND	ND	ND	0.224 or MDL	NA	1 ^m
Chrysene	4.9e	4.8e	4.8	ND	ND	ND	0.4	NA	3.9
bis(2-Ethylhexyl)phthalate	0.38	0.34j	0.42j	ND	ND	ND	50.0 ***	NA	NA
Benzo(b)fluoranthene	2.3	2.4	2.8	ND	ND	ND	1.1	NA	1 ^m
Benzo(k)fluoranthene	2.1	1.8	4.0	ND	ND	ND	1.1	NA	1
Benzo(a)pyrene	0.64	0.62	0.8j	ND	ND	ND	0.061 or MDL	NA	1 ^m
Indeno(1,2,3-c,d)pyrene	0.46	0.56	0.52j	ND	ND	ND	3.2	NA	0.5 ^m
Dibenzo(a,h)anthracene	0.62	1.1	0.57	ND	ND	ND	0.014	NA	0.33 ^k
PESTICIDES/PCBs (mg/kg)									
Aldrin	0.0081p	•	•	ND	ND	ND	0.041	NA	0.097
Heptachlor epoxide	0.0085p	•	•	ND	ND	ND	0.02	NA	NA
Endrin ketone	0.0092p	•	•	ND	ND	ND	-	NA	NA
Endosulfan II	0.017	•	•	ND	ND	ND	0.9	NA	24 ^g
α-Chlordane	0.0022p	•	•	ND	ND	ND	0.54	NA	4.2
4,4'-DDD	0.0079p	•	•	ND	ND	ND	2.9	NA	13
Aroclor 1254	ND	•	•	ND	ND	ND	1.0/10*	NA	1
Aroclor 1260	ND	•	•	ND	ND	ND	1.0/10*	NA	1

TABLE 2 (Page 2 of 2)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SOIL BORING DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-6 (0-2 ft)	EAMW-6 (4-6 ft)	EAMW-6 (8-10 ft)	EAMW-6 (10-12 ft)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED-RESIDENTIAL SOIL CLEANUP OBJECTIVE
METALS (mg/kg)							
Aluminum	7,080	18,900	18,900	20,500	SB	33,000	NA
Antimony	ND	ND	ND	ND	SB	0.6 - 10 (n)	NA
Arsenic	4.4	2.3	0.82 B	0.95	7.5 or SB	3.0 - 12.0 æ	16 ^m
Barium	81.6	69.8	189	193	300 or SB	15 - 600	400
Beryllium	0.42 B	0.70 B	0.62 B	0.59 B	0.16 or SB	0 - 1.75	72
Cadmium	1.4	ND	2.2	1.7	1 or SB	0.1 - 1.0	4.3
Calcium	3,750	1,210	1,530	1,220	SB	130 - 35,000 æ	NA
Chromium	12.4	28.1	56.2	52.2	10 or SB	1.5 - 40.0 æ	hexavalent ^f - 110 / trivalent ^f - 180
Cobalt	9.1 B	7.6 B	22.9	17.8	30 or SB	2.5 - 60.0 æ	NA
Copper	45.7	18.5	30.9	30.3	25 or SB	1.0 - 50.0	270
Iron	14,100	20,800	35,600	34,200	2,000 or SB	2,000 - 550,000	NA
Lead	141+	9.0 SA	5.5	5.2	SB**	4.0 - 61 or 200 - 500**	400
Magnesium	3,060	4,420	8,240	8,520	SB	100 - 5,000	NA
Manganese	128	375	849	686	SB	50 - 5,000	2000 ^m
Mercury****	ND N	ND N	ND N	ND N	0.1	0.001 - 0.2	0.81 ⁱ
Nickel	14.9	18.5	40.6	35.0	13 or SB	0.5 - 25	310
Potassium	2,530	2,390	8,460	9,770	SB	8,500 - 43,000 æ	NA
Selenium	0.60 B	ND W	ND W	ND W	2 or SB	0.1 - 3.9	180
Silver	ND	ND	ND	0.70 B	SB	0.1 - 5.0 (n)	180
Sodium	408 B	405 B	267 B	259 B	SB	6,000 - 8,000	NA
Thallium	0.20 B	ND	0.62 B	1.1 B	SB	0.1 - 0.8 (q)	NA
Vanadium	35.2	37.9	63.5	70.2	150 or SB	1.0 - 300	NA
Zinc	78.0	43.0	73.5	74.0	20 or SB	9.0 - 50	10000 ^d
Cyanide	ND	ND	ND	ND	****	N/A	NA

Note - Numbers in bold exceed objectives.

- Numbers in italics exceed restricted residential soil cleanup objectives (Part 375).

♦ - Not analyzed.

*** - As per TAGM #4046, total VOCs < 10 ppm,
total SVOCs < 500 ppm, individual SVOCs < 50 ppm, and
total Pesticides < 10 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

b - Found in associated blanks.

j - Estimated concentration; compound present below quantitation limit.

e - Estimated concentration; exceeds GC/MS calibration range.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to
200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable.

Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowman, H.J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but
greater than the instrument detection limit.

ND - Not detected at analytical detection limit.

DL - Diluted sample analysis.

RE - Re-analysis.

p - Estimated concentration; pesticide/PCB analyte has >25% difference for the detected concentrations between the two GC columns.

SB - Site background.

SA - Value determined by the method of standard addition.

W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

N - Spike sample recovery is not within control limits.

+ - Correlation coefficient for the MSA is <0.995

**** - Mercury results are likely biased low as the MS recovered 30.8%; actual concentration may be greater than those reported.

c - The Soil objectives (SCOs) for residential, restricted-residential resources use were capped at a maximum value of 100 ppm (mg/kg).

d - The SCOs for metals were capped at a maximum value of 10,000 ppm (mg/kg).

m - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey,
the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

f - The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the species SCO.

g - This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

i - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

TABLE 3 (Page 1 of 3)

Originally Table 4-2 (April 1996 Report on Sampling Required in Revised Addendum No. 2)

SOIL SAMPLE DATA SUMMARY (MAY 1995)
CON EDISON - ECHO AVENUE

PARAMETER	EASESS-7C (8-10 in.)	Trip Blank (µg/L)	FB-05 (µg/L)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED- RESIDENTIAL SOIL CLEANUP OBJECTIVE
VOLATILE ORGANICS (mg/kg)						
Methylene chloride	ND	1.0 bj	1.0 bj	0.1	NA	100 ^c
Acetone	ND	6.0 bj	8.0 bj	0.2	NA	100 ^c
SEMIVOLATILE ORGANICS (mg/kg)						
Naphthalene	2.4j	▲	ND	13	NA	100 ^c
2-Methylnaphthalene	2.2j	▲	ND	36.4	NA	NA
Acenaphthylene	7.8j	▲	ND	NA	NA	100 ^c
Fluorene	4.3j	▲	ND	50.0***	NA	100 ^c
Phenanthrene	21	▲	ND	50.0 ***	NA	100 ^c
Anthracene	4.9j	▲	ND	50.0 ***	NA	100 ^c
Fluoranthene	13	▲	ND	50.0 ***	NA	100 ^c
Carbazole	2.8j	▲	ND	NA	NA	NA
Pyrene	19	▲	ND	50.0 ***	NA	100 ^c
Benzo(a)anthracene	7.2j	▲	ND	0.224 or MDL	NA	1 ^e
Chrysene	9.2j	▲	ND	0.4	NA	3.9
Benzo(b)fluoranthene	4.7j	▲	ND	1.1	NA	1 ^e
Benzo(k)fluoranthene	8.7j	▲	ND	1.1	NA	3.9
Benzo(a)pyrene	5.9j	▲	ND	0.061 or MDL	NA	1 ^e
Indeno(1,2,3-c,d)pyrene	3.9j	▲	ND	3.2	NA	0.5 ^e
Benzo(g,h,i)perylene	3.7j	▲	ND	50.0 ***	NA	100 ^c

TABLE 3 (Page 2 of 3)

Originally Table 4-2 (April 1996 Report on Sampling Required in Revised Addendum No. 2)

SOIL SAMPLE DATA SUMMARY (MAY 1995)

CON EDISON - ECHO AVENUE

PARAMETER	EASESS-7C (8-10 in.)	DL EASESS-7C (8-10 in.)	ACID CLEANED EASESS-7C (8-10 in.)	ACID CLEANED EASESS-7C (8-10 in.)	FB-05 (µg/L)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	PART 375 RESTRICTED- RESIDENTIAL SOIL CLEANUP OBJECTIVE
		[DL:10:1]		[DL:10:1]			
PESTICIDES/PCBs (mg/kg)							
Heptachlor epoxide	0.12 ex	0.097 dpx	▲	▲	ND	0.02	NA
Endosulfan I	0.025 px	0.030 dpx	▲	▲	ND	0.9	24 ^g
Aldrin	0.045 ep	0.048 dp	▲	▲	ND	0.041	0.097
4,4'-DDE	0.019 px	ND	▲	▲	ND	2.1	8.9
Endrin	0.0053 px	ND	▲	▲	ND	0.10	11
Endosulfan II	0.078 epX	0.096 dpx	▲	▲	ND	0.9	24 ^g
4,4'-DDD	ND	ND	▲	▲	ND	2.9	13
4,4'-DDT	0.013 px	ND	▲	▲	ND	2.1	7.9
Methoxychlor	ND	ND	▲	▲	ND	***	NA
Endrin aldehyde	0.083 epX	0.092 dpx	▲	▲	ND	NA	NA
Endosulfan sulfate	0.011 px	ND	▲	▲	ND	1.0	24 ^g
Aroclor 1254	2.6 e	2.5 d	1.3 e	1.7 d	ND	1.0/10*	1
Aroclor 1260	ND y	ND y	0.55	0.58 d	ND	1.0/10*	1

▲ - Not analyzed.

*** - As per TAGM #4046, total VOCs < 10 ppm, total SVOCs < 500 ppm, individual SVOCs < 50 ppm, and total Pesticides < 10 ppm.

b - Found in associated blanks.

j - Estimated concentration; compound present below quantitation limit.

e - Estimated concentration; exceeds GC/MS calibration range.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

ND - Not detected at analytical detection limit.

DL - Diluted sample analysis.

p - Estimated concentration; pesticide/PCB analyte has >25% difference for the detected concentrations between the two GC columns.

x - Pesticide detected partially or totally due to the presence of Aroclors.

d - Concentration recovered from diluted sample.

TABLE 3 (Page 3 of 3)

Originally Table 4-2 (April 1996 Report on Sampling Required in Revised Addendum No. 2)

SOIL SAMPLE DATA SUMMARY (MAY 1995)

CON EDISON - ECHO AVENUE

PARAMETER	EASESS-7C (8-10 in.)	FB-05 (µg/L)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED- RESIDENTIAL SOIL CLEANUP OBJECTIVE
METALS (mg/kg)					
Aluminum	14,900 R	40 B	SB	33,000	NA
Antimony	1.1 BN	ND	SB	0.6 - 10 (n)	NA
Arsenic	16.0	ND	7.5 or SB	3.0 - 12.0 æ	16 ^g
Barium	1270 R	1.0 B	300 or SB	15 - 600	400
Beryllium	0.81 B	0.030 B	0.16 or SB	0 - 1.75	72
Cadmium	2.1	ND	1 or SB	0.1 - 1.0	4.3
Calcium	4,100 R	178 B	SB	130 - 35,000 æ	NA
Chromium	42 R	ND	10 or SB	1.5 - 40.0 æ	hexavalent ^f - 110 trivalent ^f - 180
Cobalt	15.0	ND	30 or SB	2.5 - 60.0 æ	NA
Copper	ND J	ND J	25 or SB	1.0 - 50.0	270
Iron	22,700	17 B	2,000 or SB	2,000 - 550,000	NA
Lead	1,550.0	1.3 B	SB**	4.0 - 61 or 200 - 500**	400
Magnesium	3,770	40 B	SB	100 - 5,000	NA
Manganese	376	0.67 B	SB	50 - 5,000	2000 ^g
Mercury****	1.0	ND	0.1	0.001 - 0.2	0.81 ⁱ
Nickel	28.0	ND	13 or SB	0.5 - 25	310
Potassium	2,060 E	ND	SB	8,500 - 43,000 æ	NA
Selenium	2.2	ND	2 or SB	0.1 - 3.9	180
Silver	ND	ND	SB	0.1 - 5.0 (n)	180
Sodium	192 B	ND	SB	6,000 - 8,000	NA
Thallium	1.3 B	ND	SB	0.1 - 0.8 (q)	NA
Vanadium	48.0	ND	150 or SB	1.0 - 300	NA
Zinc	379 R	5.9 B	20 or SB	9.0 - 50	10000 ^d
Cyanide	ND	ND	****	N/A	NA

Note - Numbers in bold exceed objectives.

- Numbers in italics exceed restricted residential soil cleanup objectives (Part 375).

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowan, H.J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

ND - Not detected at analytical detection limit.

SB - Site background.

R - Duplicate analysis not within control limits.

N - Spike sample recovery is not within control limits.

J - Results rejected; based on QC evaluation.

+ - Correlation coefficient for the MSA is <0.995

**** - Mercury results are likely biased low as the MS recovered 30.8%; actual concentration may be greater than those reported.

c - The Soil objectives (SCOs) for residential, restricted-residential resources use were capped at a maximum value of 100 ppm (mg/kg).

d - The SCOs for metals were capped at a maximum value of 10,000 ppm (mg/kg).

e - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

f - The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the species SCO.

g - This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

i - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

j - For constituents where the calculated SCO was lower than contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

TABLE 4 (Page 1 of 5)

Originally Table 4-19
(February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-1 Jul-92	RE EAMW-1 Jul-92	EAMW-1 Sep 92 ^{1,2}	EAMW-1 Dec 92 ²	EAMW-2 Jul-92	EAMW-2 Sep 92 ^{1,2}	EAMW-2 Dec 92 ²	EAMW-3 Jul-92	RE EAMW-3 Jul-92	Filtered EAMW-3 Jul-92	EAMW-3 Sep 92 ^{1,2}	EAMW-3 Dec 92 ²	NYSDEC CLASS GA STANDARD
VOLATILE ORGANICS (µg/L)	ND	NR	NU	ND	ND	NU	ND	ND	NR	NR	NU	ND	-
SEMIVOLATILE ORGANICS (µg/L)													
bis(2-Ethylhexyl)phthalate	2bj	6.5b	39b	NR	1.5j	15b	NR	ND	11b	NR	30b	NR	50
PESTICIDES/PCBs (µg/L)	ND	NR	ND	NR	ND	ND	NR	ND	NR	ND ³	ND	NR	-

1 - Pesticide/PCB samples were analyzed using low-level methods in accordance with NYSDEC CLP 12/91 protocol.

2 - 9/92 and 12/92 volatile samples were analyzed using EPA low-level method 542.2.

3 - Sample only analyzed for PCBs.

b - Found in associated blanks.

j - Estimated concentration; compound present below quantitation limit.

ND - Not detected at analytical detection limit.

NR - Not run.

NU - Data not usable due to holding time exceedance.

RE - Re-analysis

Note: - Numbers in bold exceed objectives.

TABLE 4 (Page 2 of 5)

Originally Table 4-19
(February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)
CON EDISON - ECHO AVENUE

PARAMETER	EAMW-4 Jul-92	EAMW-4 Sep 92 ^{1,2}	EAMW-4 Dec 92 ²	EAMW-5 Jul-92	EAMW-5 Sep 92 ^{1,2}	EAMW-5 Dec 92 ²	EAMW-6 Jul-92	EAMW-6 Sep 92 ^{1,2}	EAMW-6 Dec 92 ²	NYSDEC CLASS GA STANDARD
VOLATILE ORGANICS (µg/L)										
Toluene	2j	NU	ND	ND	NU	ND	ND	NU	ND	5
SEMIVOLATILE ORGANICS (µg/L)										
bis(2-Ethylhexyl)phthalate	ND	25b	NR	9b	22b	NR	1.5j	13b	NR	50
PESTICIDES/PCBs (µg/L)										
	ND	ND	NR	ND	ND	NR	ND	ND	NR	-

1 - Pesticide/PCB samples were analyzed using low-level methods in accordance with NYSDEC CLP 12/91 protocol.

2 - 9/92 and 12/92 volatile samples were analyzed using EPA low-level method 542.2.

b - Found in associated blanks.

j - Estimated concentration; compound present below quantitation limit.

ND - Not detected at analytical detection limit.

NR - Not run.

NU - Data not usable due to holding time exceedance.

Note: - Numbers in bold exceed objectives.

TABLE 4 (Page 3 of 5)

Originally Table 4-19
(February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)
CON EDISON - ECHO AVENUE

PARAMETER	EAMW-7 Jul-92	EAMW-7 Sep 92 ^{1,2}	EAMW-7 Dec 92 ²	FIELD BLANK Jul-92	FIELD BLANK Sep 92 ^{1,2}	FIELD BLANK Dec 92 ²	TRIP BLANK Jul-92	TRIP BLANK Sep 92 ^{1,2}	TRIP BLANK Dec 92 ²	NYSDEC CLASS GA STANDARD
VOLATILE ORGANICS (µg/L)	ND	NU	ND	ND	NU	ND	ND	NU	NR	-
SEMIVOLATILE ORGANICS (µg/L)										
bis(2-Ethylhexyl)phthalate	ND	44b	NR	2j	19b	NR	NR	NR	NR	50
PESTICIDES/PCBs (µg/L)	ND	ND	NR	ND	ND	NR	ND	ND	NR	-

1 - Pesticide/PCB samples were analyzed using low-level methods in accordance with NYSDEC CLP 12/91 protocol.

2 - 9/92 and 12/92 volatile samples were analyzed using EPA low-level method 542.2.

b - Found in associated blanks.

ND - Not detected at analytical detection limit.

NR - Not run.

NU - Data not usable due to holding time exceedance.

Note: - Numbers in bold exceed objectives.

TABLE 4 (Page 4 of 5)

Originally Table 4-19
(February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-1 Jul-92	EAMW-1 Sep-92	EAMW-2 Jul-92	EAMW-2 Sep-92	EAMW-3 Jul-92	Filtrate EAMW-3 Jul-92	EAMW-3 Sep-92	EAMW-4 Jul-92	EAMW-4 Sep-92	NYSDEC CLASS GA STANDARDS
METALS (µg/L)										
Aluminum	919	442	10,700	2,990	94,100	ND	50,800	254	1,190	NS
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.0 GV
Arsenic	29.8	15.7 N	36.2	26.4 N	4.4 B	ND	3.4 BN	11.7 SA	10.8 N	25
Barium	72.5 B	43.8 B	109 B	51.4 B	810	122 B	459	70.8 B	72.1 B	1,000
Beryllium	ND	ND	ND	0.80 B	5.6	1.9 B	3.6 B	3.3 B	3.6 B	3.0 GV
Cadmium	11.0	4.4 BN	5.0	ND N	26.3	3.8 B	14.5 N	ND	ND N	10
Calcium	27,700	20,800	38,600	36,600	62,100	51,400	59,700	211,000	199,000	NS
Chromium	ND	ND	27.1	9.6 B	200.0	ND	109	ND	ND	50
Cobalt	8.8 B	ND N	ND	ND N	60.5	ND	37.9 BN	ND	ND N	NS
Copper	17.6 B	9.4 B	27.8	8.4 B	149	5.6 B	83.7	29.3	27.9	200
Iron	26,800	10,700 N	12,300	4,270	118,000	139	60,400 N	9,170	2,490 N	300 (m)
Lead	17.0 N	8.9	27.8 N	7.9	88.9 N	ND N	58.9 SA	18.9 N+	21.0 W	25
Magnesium	11,000	6,920	3,770 B	3,320 B	25,000	3,400 B	16,500	64,600	605,000	35,000 GV
Manganese	1,180	429 EN	225	189 EN	1,660	626	1,110 EN	648	214 EN	300 (m)
Mercury	ND N	ND	0.23 N	ND	0.44 N	ND N	0.14 B	0.39 N	0.40	2.0
Nickel	ND	15.2 BN	13.0 B	9.6 BN	158	ND	95.0 N	ND	12.9 BN	NS
Potassium	6,260	4,320 B	17,800	16,800	16,900	5,130	12,900	209,000	161,000	NS
Selenium	ND	ND NW	ND	1.2 BNW	ND W	ND W	ND NW	ND W	ND N	10
Silver	ND	ND N	ND NW	ND N	ND	ND	ND N	3.7 B	ND N	50
Sodium	84,700	40,500	32,000	34,300	20,100	19,300	21,500	531,000	979,000 E	20,000
Thallium*	ND NW	ND N	ND	ND N	1.5 B	ND N	ND NW	11.0 B	ND NW	4.0 GV
Vanadium	ND	3.7 B	ND	9.0 B	234	ND	127	ND	7.6 B	NS
Zinc	104	150	64.8	33.5	470	3.1 B	291	172	244	300
Cyanide	ND	ND	ND	ND	ND	NR	ND	ND	ND	100

Note: - Numbers in bold exceed objectives.

NR - Not run.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

E - Estimated value.

N - Spiked sample recovery is not within control limits.

W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

GV - Guidance value.

ND - Not detected at analytical detection limit.

NS - No standard.

SA - Value determined by the method of standard addition.

(m) - Iron and manganese not to exceed 500 µg/L.

+

- Correlation coefficient for the MSA is <0.995.

* - Thallium results are likely biased low due to low matrix spike recovery; actual concentrations may exceed the detection limit.

TABLE 4 (Page 5 of 5)

Originally Table 4-19
(February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-5 Jul-92	EAMW-5 Sep-92	EAMW-6 Jul-92	EAMW-6 Sep-92	EAMW-7 Jul-92	EAMW-7 Sep-92	FIELD BLANK Jul-92	FILED BLANK Sep-92	NYSDEC CLASS GA STANDARDS
METALS (µg/L)									
Aluminum	216	32.0 B	4,880	8,480	5,080	7,330	ND	11.1 B	NS
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	3.0 GV
Arsenic	ND W	ND NW	ND	ND N	ND	ND N	ND	ND N	25
Barium	127 B	146 B	114 B	166 B	116 B	153 B	ND	ND	1,000
Beryllium	4.1 B	3.9 B	ND	1.0 B	ND	1.2 B	ND	ND	3.0 GV
Cadmium	ND	ND N	ND	ND N	3.3 B	3.0 BN	ND	ND N	10
Calcium	257,000	231,000	51,900	56,400	52,100	57,200	75.0 B	63.8 B	NS
Chromium	ND	ND	9.2 B	20.7	14.4	18	ND	ND	50
Cobalt	ND	ND N	ND	ND N	ND	ND N	ND	ND N	NS
Copper	15.3 B	10.7 B	19.6 B	24.0 B	18.6 B	20.9 B	ND	ND	200
Iron	436	83.4 BN	7,610	13,000 N	8,110	11,000 N	ND	ND N	300 (m)
Lead	ND NWR	ND W	2.2 BNR	5.1	2.8 BNR	4.5	ND NR	ND	25
Magnesium	773,000	649,000	17,800	19,900	17,700	19,900	ND	118 B	35,000 GV
Manganese	6.0 B	ND EN	559	538 EN	595	449 EN	ND	ND EN	300 (m)
Mercury	ND N	ND	ND N	ND	ND N	ND	ND N	ND	2.0
Nickel	ND	7.3 BN	ND	14.9 BN	18.3 B	21.2 BN	ND	ND N	NS
Potassium	252,000	189,000	7,060	9,020	7,230	8,280	ND	73.6 B	NS
Selenium	ND W	4.5 BN	ND	1.1 BN	ND	1.4 BN	ND W	ND N	10
Silver	ND	ND N	ND	ND N	ND	ND N	ND	ND N	50
Sodium	6,300,000	4,990,000	97,400	102,000	98,000	101,000	40.3 B	1,160 B	20,000
Thallium*	ND N	ND NW	ND NW	ND N	ND NW	ND N	ND N	ND N	4.0 GV
Vanadium	ND	3.4 B	ND	26.7 B	ND	23.7 B	ND	ND	NS
Zinc	46	30.8	29.1	59.9	36.9	49.7	4.7 B	7.2 B	300
Cyanide	ND	ND	ND	ND	ND	ND	ND	ND	100

Note: Numbers in bold exceed objectives.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

E - Estimated value.

N - Spiked sample recovery is not within control limits.

W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

GV - Guidance value.

ND - Not detected at analytical detection limit.

NS - No standard.

SA - Value determined by the method of standard addition.

(m) - Iron and manganese not to exceed 500 µg/L.

R - Duplicate analysis not within control limits.

* - Thallium results are likely biased low due to low matrix spike recovery; actual concentrations may exceed the detection limit.

TABLE 5
SOIL CLEANUP OBJECTIVES
Page 1 of 4

Contaminant	Rec. Soil Cleanup Objective (ppm) TAGM 4046 (1/94)	Part 375 Unrestricted Use (ppm)	Part 375 Restricted Residential Use (ppm)
Volatile Organic Contaminants			
Acetone	0.2	0.05	100 ^c
Benzene	0.06	0.06	4.8
Benzoic Acid	2.7	NL	NL
2-Butanone	0.3	0.12	100 ^c
n-Butylbenzene	NL	12	100 ^c
sec-Butylbenzene	NL	11	100 ^c
tert-Butylbenzene	NL	5.9	100 ^c
Carbon Disulfide	2.7	NL	NL
Carbon Tetrachloride	0.6	0.76	2.4
Chlorobenzene	1.7	1.1	100 ^c
Chloroethane	1.9	NL	NL
Chloroform	0.3	0.37	49
Dibromochloromethane	NA	NL	NL
1,2 - Dichlorobenzene	7.9	1.1	100 ^c
1,3 - Dichlorobenzene	1.6	2.4	49
1,4 - Dichlorobenzene	8.5	1.8	13
1,1 - Dichloroethane	0.2	0.27	26
1,2 - Dichloroethane	0.1	0.02 ^a	3.1
1,1 - Dichloroethylene	0.4	0.33	100 ^c
1,2 - Dichloroethylene (cis)	NL	0.25	100 ^c
1,2 - Dichloroethylene (trans)	0.3	0.19	100 ^c
1,3 - dichloropropane	0.3	NL	NL
1,4-Dioxane	NL	0.1 ^b	13
Ethylbenzene	5.5	1	41
113 Freon (1,1,2 Trichloro - 1,2,2 Trifluoroethane)	6.0	NL	NL
Hexachlorobenzene	0.4	0.33 ^b	1.2
Methyl tert-butyl ether	NL	0.93	100 ^c
Methylene Chloride	0.1	0.05	100 ^c
4-Methyl - 2 - Pentanone	1.0	NL	NL
n-Propylbenzene	NL	3.9	100 ^c
Tetrachloroethylene	1.4	1.3	19
1,1,2,2 - Tetrachloroethane	0.6	NL	NL
1,1,1 - Trichloroethane	0.8	0.68	100 ^c
1,2,3 - Trichloropropane	0.4	NL	NL
1,2,4 - Trichlorobenzene	3.4	NL	NL
1,2,4-Trimethylbenzene	NL	3.6	52
1,3,5-TriMethylbenzene	NI	8.4	52
Toluene	1.5	0.7	100 ^c
Trichloroethylene	0.7	0.47	21
Vinyl Chloride	0.2	0.02	0.9
Xylenes	1.2	0.26	100 ^c

NA - Not Applicable

MDL - Method Detection Limit

NL - Not Listed

TABLE 5
SOIL CLEANUP OBJECTIVES
Page 2 of 4

Contaminant	Rec. Soil Cleanup Objective (ppm) TAGM 4046 (1/94)	Part 375 Unrestricted Use (ppm)	Part 375 Restricted Residential Use (ppm)
Semi-Volatile Organic Contaminants			
Acenaphthene	50.0***	20	100 ^c
Acenaphthylene	41.0	100 ^c	100 ^c
Aniline	0.1	NL	NL
Anthracene	50.0***	100 ^c	100 ^c
Benzo(a)anthracene	0.224 or MDL	1 ^a	1 ^a
Benzo(a)pyrene	0.061 or MDL	1 ^a	1 ^a
Benzo(b)fluoranthene	1.1	1 ^a	1 ^a
Benzo(g,h,i)perylene	50.0***	100	100 ^c
Benzo(k)fluoranthene	1.1	0.8 ^a	100 ^c
bis(2-ethylhexyl)phthalate	50.0***	NL	NL
Butylbenzenephthalate	50.0***	NL	NL
Chrysene	0.4	1 ^a	3.9
4-Chloroaniline	0.220 or MDL	NL	NL
4-Chloro-3-methylphenol	0.240 or MDL	NL	NL
2-Chlorophenol	0.8	NL	NL
m-Cresol	NL	0.33 ^b	100 ^c
o-Cresol	NL	0.33 ^b	100 ^c
p-Cresol	NL	0.33 ^b	100 ^c
Dibenzofuran	6.2	7	59
Dibenzo(a,h)anthracene	0.014 or MDL	0.33 ^b	0.33 ^b
3,3'-Dichlorobenzidine	N/A	NL	NL
2,4-Dichlorophenol	0.4	NL	NL
2,4-Dinitrophenol	0.200 or MDL	NL	NL
2,6-Dinitrophenol	1.0	NL	NL
Diethylphthalate	7.1	NL	NL
Dimethylphthalate	2.0	NL	NL
Di-n-Butylphthalate	8.1	NL	NL
Di-n-Octylphthalate	50.0***	NL	NL
Fluoranthene	50.0**	100 ^c	100 ^c
Fluorene	50.0**	30	100 ^c
Indeno(1,2,3-cd)pyrene	3.2	0.5 ^a	0.5 ^a
Isophorone	4.4	NL	NL
2-Methylnaphthalene	36.4	NL	NL
2-Methylphenol	0.100 or MDL	NL	NL
4-Methylphenol	0.9	NL	NL
Naphthalene	13.0	12	100 ^c
Nitrobenzene	0.200 or MDL	NL	NL
2-Nitroaniline	0.430 or MDL	NL	NL
2-Nitrophenol	0.330 or MDL	NL	NL
3-Nitroaniline	0.500 or MDL	NL	NL
Pentachlorophenol	1.0 or MDL	0.8 ^b	6.7
Phenanthrene	50.0**	100	100 ^c
Phenol	0.03 or MDL	0.33 ^b	100 ^c
Pyrene	50.0**	100	100 ^c
2,4,5-Trichlorophenol	0.1	NL	NL

NA - Not Applicable

MDL - Method Detection Limit

***As per TAGM 4046 individual non-carcinogenic semivolatiles ≤ 50ppm and total semi-volatiles not listed (Tentatively Identified Compounds (TICs)) ≤ 500ppm

TABLE 5
SOIL CLEANUP OBJECTIVES
Page 3 of 4

Contaminant	Rec. Soil Cleanup Objective (ppm) TAGM 4046 (1/94)	Part 375 Unrestricted Use (ppm)	Part 375 Restricted Residential Use (ppm)
Organic Pesticides/Herbicides and PCBs			
Aldrin	0.4	0.005 ^a	0.097
α-BHC	0.1	0.02	0.48
β-BHC	0.2	0.036	0.36
δ-BHC	0.3	0.04	100 ^c
Chlordane	0.5	0.094	4.2
2,4-D	0.5	NL	NL
4,4'-DDD	2.9	0.0033 ^a	13
4,4'-DDE	2.1	0.0033 ^a	8.9
4,4'-DDT	2.1	0.0033 ^a	7.9
Dibenzo-p-dioxins (PCDD)			
2,3,7,8-TCDD	N/A	NL	NL
Dieldrin	0.4	0.005 ^a	0.2
Endosulfan I	0.9	2.4 ^d	24 ^d
Endosulfan II	0.9	2.4 ^d	24 ^d
Endosulfan Sulfate	1.0	2.4 ^d	24 ^d
Endrin	0.1	0.014	11
Endrin Ketone	N/A	NL	NL
γ-BHC (Lindane)	0.1	0.1	2.1
γ-Chlordane	0.5	NL	NL
Heptachlor	0.1	0.042	2.1
Heptachlor epoxide	0.0	NL	NL
Methoxychlor	****	NL	NL
Mitotane	N/A	NL	NL
Parathion	1.2	NL	NL
PCBs	1.0 (surface - ≤2 ft), 10.0 (Subsurface- >2 but ≤10 ft)	0.1	1
Polychlorinated dibenzofurans (PCDF)	N/A	NL	NL
Silvex	0.7	NL	NL
2,4,5-T	1.9	3.8	100 ^c

NA - Not Applicable

MDL - Method Detection Limit

NL - Not Listed

****As per TAGM 4046, Total Pesticides < 10 ppm.

TABLE 5
SOIL CLEANUP OBJECTIVES
Page 4 of 4

Contaminant	Rec. Soil Cleanup Objective (ppm) TAGM 4046 (1/94)	Part 375 Unrestricted Use (ppm)	Part 375 Restricted Residential Use (ppm)
Heavy Metals			
Aluminum	SB	NL	NL
Antimony	SB	NL	NL
Arsenic	7.5 or SB	13 ^a	16 ^a
Barium	300 or SB	350 ^a	400
Beryllium	0.16 or SB	7.2	72
Cadmium	1 or SB	2.5 ^a	4.3
Calcium	SB	NL	NL
Chromium ^{e,f}	10 or SB	1 ^b /30 ^a	110 ^b /180 ^a
Cobalt	30 or SB	NL	NL
Copper	25 or SB	50	270
Cyanide	*****	27	27
Iron	2,000 or SB	NL	NL
Lead	SB*****	63 ^a	400
Magmesium	SB	NL	NL
Manganese	SB	1600 ^a	2000 ^a
Mercury	0.1	0.18 ^a	0.81 ^g
Nickel	13 or SB	30	310
Potassium	SB	NL	NL
Selenium	2 or SB	3.9 ^a	180
Silver	SB	2	180
Sodium	SB	NL	NL
Thallium	SB	NL	NL
Vanadium	150 or SB	NL	NL
Zinc	20 or SB	109 ^a	10000 ^h

NA - Not Applicable

SB is site background

NL - Not Listed

***** - Some forms of cyanide are complex and very stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of cyanide should be taken into consideration when establishing soil cleanup objectives.

***** - Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

a - For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the NYSDEC and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO for this use of the site.

b- For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

c- The SCOs for unrestricted and restricted residential use were capped at a maximum value of 100 ppm.

d- SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

e- The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

f- First number is for hexavalent chromium, second number is for trivalent chromium.

g-This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

h-The SCOs for metals were capped at a maximum value of 10,000 ppm.

TABLE 6 (Page 1 of 1)
Originally Table 5-11 (July 2003 Remediation Report Addendum)
CON EDISON - ECHO AVENUE
BACKFILL SOIL DATA SUMMARY (Mitekem)
(March 2003)

PARAMETER	JPG-01-07	JPG-01-07RE	DETECTION LIMIT	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)					
Methylene chloride	0.013	♦	0.006	0.1	NA
Acetone	0.014	♦	0.006	0.2	NA
SEMIVOLATILE ORGANICS (mg/kg)					
bis(2-Ethylhexyl)phthalate	0.210 j	0070 j	0.350 ¹	50.0 ***	NA
PESTICIDES (mg/kg)	ND	♦	0.0018 - 0.180 ²	0.02 - 2.9 ⁴	NA
PCBS (mg/kg)	ND	♦	0.035	1.0/10*	NA
HERBICIDES (mg/kg)	ND	♦	0.028 - 0.0028 ³	0.5 - 1.9 ⁵	NA
METALS (mg/kg)					
Aluminum	4,590	♦	0.850	SB	33,000
Antimony	0.80 B	♦	0.150	SB	0.6 - 10 (n)
Arsenic	2.4	♦	0.150	7.5 or SB	3.0 - 12.0 æ
Barium	24.8	♦	0.2	300 or SB	15 - 600
Beryllium	0.52	♦	0.025	0.16 or SB	0 - 1.75
Cadmium	0.20 B	♦	0.035	1 or SB	0.1 - 1.0
Calcium	1,450	♦	12,000	SB	130 - 35,000 æ
Chromium	8.2	♦	0.030	10 or SB	1.5 - 40.0 æ
Cobalt	4.4	♦	0.045	30 or SB	2.5 - 60.0 æ
Copper	14.5	♦	0.2	25 or SB	1.0 - 50.0
Iron	11,100	♦	1.3	2,000 or SB	2,000 - 550,000
Lead	3.1	♦	0.200	SB**	4.0 - 61 or 200 - 500**
Magnesium	2,400	♦	0.4	SB	100 - 5,000
Manganese	277	♦	0.04	SB	50 - 5,000
Mercury	ND	♦	0.017	0.1	0.001 - 0.2
Nickel	9.5	♦	0.04	13 or SB	0.5 - 25
Potassium	548	♦	3.9	SB	8,500 - 43,000 æ
Selenium	ND	♦	0.45	2 or SB	0.1 - 3.9
Silver	ND	♦	0.1	SB	0.1 - 5.0 (n)
Sodium	67.7	♦	4.150	SB	6,000 - 8,000
Thallium	ND	♦	0.150	SB	0.1 - 0.8 (q)
Vanadium	13.6	♦	0.035	150 or SB	1.0 - 300
Zinc	27.2	♦	0.35	20 or SB	9.0 - 50
IGNITIBILITY	>170 °F	♦	200 °F	< 140 °F ⁶	NA
REACTIVITY	ND	♦	1.0	> 250 R-CN, > 500 R-S ⁶	NA
CORROSIVITY	6.5	♦	1.0	≤ 2.0 or ≥ 12.5 ⁶	NA
TPH (mg/kg)	ND	♦	25	NA	NA

Note : Numbers in bold exceed cleanup objectives.

- Sample analyzed by Mitekem.

NA - Not applicable.

*** - As per TAGM #4046, Total VOCs < 10 ppm., total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

j - Estimated concentration; compound present below quantitation limit.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowan, H.J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

SB - Site background.

1 - Detection limits for most SVOCs is 0.350 mg/kg. Detection limit for 2,4,5-Trichlorophenol, 2-Nitroaniline, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroaniline, 4,6-Dinitro-2-methylphenol, and Pentachlorophenol is 0.720 mg/kg.

2 - Detection limits for most pesticides is 0.0018 mg/kg. Detection limit for Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, and Endrin aldehyde is 0.0035 mg/kg. Detection limit for methoxychlor is 0.018 mg/kg and detection limit for toxaphene is 0.18 mg/kg.

3 - Detection limits for 2,4-D, 2,4,5-T, and Silvex are 0.028, 0.028, and 0.0028 mg/kg, respectively. Detection limits for remaining herbicides range from 28 to 0.0028 mg/kg.

4 - TAGM criteria for Heptachlor epoxide, Aldrin, Dieldrin, and gamma-BHC is 0.02, 0.041, 0.044, and 0.06 mg/kg, respectively. Criteria for remaining pesticides ranges between 0.01 mg/kg for Heptachlor to 2.9 mg/kg for 4,4'-DDD. There is no criteria for 2,3,7,8-TCDD, Endrin ketone, Mitotane, or PCDF.

5 - TAGM criteria for 2,4-D, 2,4,5-T, and Silvex are 0.5, 0.7, and 1.9 mg/kg, respectively. There are no available criteria for the remaining herbicides.

6 - RCRA Characteristics for hazardous substance.

♦ - Not re-analyzed

TABLE 7 (Page 1 of 2)
Originally Table 5-12 (July 2003 Remediation Report Addendum)
CON EDISON - ECHO AVENUE
BACKFILL SOIL DATA SUMMARY (STL)
(March 2003)

PARAMETER	JPG-AV	JPG-A	JPG-B-V	JPG-B	JPG-C-A	JPG-C	DETECTION LIMIT	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)									
Methylene chloride	ND	♦	0.0013 j	♦	0.0012 j	♦	0.011	0.1	NA
Acetone	ND	♦	0.006 j	♦	0.0055 j	♦	0.011	0.2	NA
Total Xylenes	0.0015 j	♦	0.0014 j	♦	ND	♦	0.011	1.2	
SEMIVOLATILE ORGANICS (mg/kg)	♦	ND	♦	ND	♦	ND	0.380 ¹	50.0 ***	NA
PESTICIDES (mg/kg)	♦	ND	♦	ND	♦	ND	0.0019 - 0.037 ²	0.02 - 2.9 ³	NA
PCBs (mg/kg)	♦	ND	♦	ND	♦	ND	0.019 - 0.037 ⁴	1.0/10*	NA
HERBICIDES (mg/kg)	♦	ND	♦	ND	♦	ND	0.028 - 0.0028 ⁵	0.5 - 1.9 ⁶	NA
IGNITIBILITY	♦	>200 °F	♦	>200 °F	♦	>200 °F	70 °F	< 140 °F ⁷	NA
REACTIVITY	♦	ND	♦	ND	♦	ND	25 CN, 20 S	> 250 R-CN, > 500 R-S ⁷	NA
CORROSIVITY	♦	5.28	♦	5.11	♦	5.36	0.2	≤ 2.0 or ≥ 12.5 ⁷	NA
TPH (mg/kg)	♦	ND	♦	ND	♦	ND	21.4 - 21.7	NA	NA

Note : Numbers in bold exceed cleanup objectives

- All samples analyzed by STL.

NA - Not applicable.

*** - As per TAGM #4046, Total VOCs < 10 ppm.,
total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/9.

a - Sample analyzed by Environmental Testing Laboratories, Inc

c - Sample analyzed by Severn Trent Laboratories, Inc

b - Found in associated blanks.

e - Estimated concentration; exceeds GC/MS calibration range

j - Estimated concentration; compound present below quantitation limit

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

MDL - Method detection limit.

p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to
200 - 500 ppm in metropolitan or suburban areas or near highways

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and
hence are very unstable. Site-specific form(s) of Cyanide should be taken into
consideration when establishing soil cleanup objectives

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials

(q) - Bowan, H.J., Environmental Chemistry of the Elements

B - Value is less than the contract-required detection limit but greater than the instrument detection limit

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits

R - Duplicate analysis not within control limits

SB - Site background.

1 - Detection limits for most SVOCs is 0.380 mg/kg. Detection limit for 2,4,5-Trichlorophenol, 2-Nitroaniline, 3-Nitroaniline, 2,4-Dinitrophenol,
4-Nitrophenol, 4-Nitroaniline, 4,6-Dinitro-2-methylphenol, and Pentachlorophenol is 0.950 mg/kg

2 - Detection limits for most pesticides are 0.0019 or 0.0037-0.0038 mg/kg. Detection limit for methoxychlor and technical chlordane is 0.019 mg/kg, and the detection limit for toxaphene is 0.037-0.038 mg/kg

3 - TAGM criteria for Heptachlor epoxide, Aldrin, Dieldrin, and gamma-BHC is 0.02, 0.041, 0.044, and 0.06 mg/kg, respectively. Criteria for remaining pesticides ranges
between 0.01 mg/kg for Heptachlor to 2.9 mg/kg for 4,4'-DDD. There is no criteria for 2,3,7,8-TCDD, Endrin ketone, Mitotane, or PCDF.

4 - Detection limits for most PCB Aroclors is 0.019 mg/kg. Detection limit for Aroclors 1254 and 1260 is 0.037-0.038 mg/kg.

5 - Detection limit for 2,4-D, 2,4,5-T, and Silvex is 0.019 mg/kg.

6 - TAGM criteria for 2,4-D, 2,4,5-T, and Silvex are 0.5, 0.7, and 1.9 mg/kg, respectively.

7 - RCRA Characteristics for hazardous substance

♦ - Not Analyzed

TABLE 7 (Page 2 of 2)
Originally Table 5-12 (July 2003 Remediation Report Addendum)
CON EDISON - ECHO AVENUE
BACKFILL SOIL DATA SUMMARY (STL)
(March 2003)

PARAMETER	JPG-AV	JPG-A	JPG-B-V	JPG-B	JPG-C-A	JPG-C	DETECTION LIMIT	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
METALS (mg/kg)									
Aluminum	♦	8000	♦	7750	♦	8750	45.0 - 45.7	SB	33,000
Antimony	♦	ND	♦	ND	♦	ND	13.5 - 13.7	SB	0.6 - 10 (n)
Arsenic	♦	4.5	♦	4.0	♦	4.4	2.2 - 2.3	7.5 or SB	3.0 - 12.0 æ
Barium	♦	ND	♦	ND	♦	46.6	45.0 - 45.7	300 or SB	15 - 600
Beryllium	♦	ND	♦	ND	♦	ND	1.1	0.16 or SB	0 - 1.75
Cadmium	♦	ND	♦	ND	♦	ND	1.1	1 or SB	0.1 - 1.0
Calcium	♦	613	♦	350	♦	470	112 - 114	SB	130 - 35,000 æ
Chromium	♦	10.6	♦	8.9	♦	11.9	2.2 - 2.3	10 or SB	1.5 - 40.0 æ
Cobalt	♦	ND	♦	ND	♦	ND	11.2 - 11.4	30 or SB	2.5 - 60.0 æ
Copper	♦	11.8	♦	11.2	♦	14.4	5.6 - 5.7	25 or SB	1.0 - 50.0
Iron	♦	13,900	♦	12,100	♦	14,200	22.5 - 22.9	2,000 or SB	2,000 - 550,000
Lead	♦	6.9	♦	6.6	♦	7.5	1.1	SB**	4.0 - 61 or 200 - 500**
Magnesium	♦	2390	♦	2240	♦	2560	112 - 114	SB	100 - 5,000
Manganese	♦	387	♦	367	♦	426	2.2 - 2.3	SB	50 - 5,000
Mercury	♦	ND	♦	ND	♦	ND	0.051 - 0.054	0.1	0.001 - 0.2
Nickel	♦	10.9	♦	9.8	♦	11.8	9.0 - 9.1	13 or SB	0.5 - 25
Potassium	♦	497	♦	470	♦	506	112 - 114	SB	8,500 - 43,000 æ
Selenium	♦	ND	♦	ND	♦	ND	1.1	2 or SB	0.1 - 3.9
Silver	♦	ND	♦	ND	♦	ND	2.2 - 2.3	SB	0.1 - 5.0 (n)
Sodium	♦	ND	♦	ND	♦	ND	112 - 114	SB	6,000 - 8,000
Thallium	♦	ND	♦	ND	♦	ND	2.2 - 2.3	SB	0.1 - 0.8 (q)
Vanadium	♦	15.1	♦	13.5	♦	18.3	11.2 - 11.4	150 or SB	1.0 - 300
Zinc	♦	28.1	♦	26.5	♦	28.9	4.5 - 4.6	20 or SB	9.0 - 50

Note : Numbers in bold exceed cleanup objectives

NA - All samples analyzed by STL.

NA - Not applicable.

*** - As per TAGM #4046, Total VOCs < 10 ppm., total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/9.

a - Sample analyzed by Environmental Testing Laboratories, Inc

c - Sample analyzed by Severn Trent Laboratories, Inc

b - Found in associated blanks.

e - Estimated concentration; exceeds GC/MS calibration range

j - Estimated concentration; compound present below quantitation limit

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

MDL - Method detection limit.

p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials

(q) - Bowan, H.J., Environmental Chemistry of the Elements

B - Value is less than the contract-required detection limit but greater than the instrument detection limit

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits

R - Duplicate analysis not within control limits

SB - Site background.

1 - Detection limits for most SVOCs is 0.380 mg/kg. Detection limit for 2,4,5-Trichlorophenol, 2-Nitroaniline, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroaniline, 4,6-Dinitro-2-methylphenol, and Pentachlorophenol is 0.950 mg/kg

2 - Detection limits for most pesticides are 0.0019 or 0.0037-0.0038 mg/kg. Detection limit for methoxychlor and technical chlordane is 0.019 mg/kg, and the detection limit for toxaphene is 0.037-0.038 mg/kg

3 - TAGM criteria for Heptachlor epoxide, Aldrin, Dieldrin, and gamma-BHC is 0.02, 0.041, 0.044, and 0.06 mg/kg, respectively. Criteria for remaining pesticides ranges between 0.01 mg/kg for Heptachlor to 2.9 mg/kg for 4,4'-DDD. There is no criteria for 2,3,7,8-TCDD, Endrin ketone, Mitotane, or PCDF.

4 - Detection limits for most PCB Aroclors is 0.019 mg/kg. Detection limit for Aroclors 1254 and 1260 is 0.037-0.038 mg/kg.

5 - Detection limit for 2,4-D, 2,4,5-T, and Silvex is 0.019 mg/kg.

6 - TAGM criteria for 2,4-D, 2,4,5-T, and Silvex are 0.5, 0.7, and 1.9 mg/kg, respectively.

7 - RCRA Characteristics for hazardous substance

♦ - Not Analyzed

TABLE 8 (Page 1 of 1)
Originally Table 5-13 (July 2003 Remediation Report Addendum)
TOP SOIL DATA SUMMARY
(April 2003)

PARAMETER	PTS-G	PTS-C	DETECTION LIMIT	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)	ND	♦	0.013	0.06 - 8.5	NA
SEMIVOLATILE ORGANICS (mg/kg)					
Fluoranthene	♦	0.084 j	0.430	50.0 ***	NA
Pyrene	♦	0.087 j	0.430	50.0 ***	NA
Benzo(b)fluoranthene	ND	♦		1.1	NA
Benzo(k)fluoranthene	ND	♦		1.1	NA
Benzo(a)pyrene	ND	♦		0.061 or MDL	NA
Indeno(1,2,3-c,d)pyrene	ND	♦		3.2	NA
Benzo(g,h,i)perylene	ND	♦		50.0 ***	NA
PESTICIDES (mg/kg)					
4,4'-DDE	♦	0.0012 j	0.0043	2.1	NA
4,4'-DDT	♦	0.0013 j	0.0043	2.1	NA
PCBS (mg/kg)	♦	ND	0.021 - 0.043 *	1.0/10*	NA
HERBICIDES (mg/kg)	♦	ND	0.021	0.5 - 1.9 *	NA
METALS (mg/kg)					
Aluminum	♦	13,800	15.1	SB	33,000
Antimony	♦	ND	15.3	SB	0.6 - 10 (n)
Arsenic	♦	4.9	2.6	7.5 or SB	3.0 - 12.0 æ
Barium	♦	84.4	51.1	300 or SB	15 - 600
Beryllium	♦	ND	1.3	0.16 or SB	0 - 1.75
Cadmium	♦	ND	1.3	1 or SB	0.1 - 1.0
Calcium	♦	1,970	128	SB	130 - 35,000 æ
Chromium	♦	20.5	2.6	10 or SB	1.5 - 40.0 æ
Cobalt	♦	ND	12.8	30 or SB	2.5 - 60.0 æ
Copper	♦	19.0	6.4	25 or SB	1.0 - 50.0
Iron	♦	17,900	25.6	2,000 or SB	2,000 - 550,000
Lead	♦	19.2	1.3	SB**	4.0 - 61 or 200 - 500**
Magnesium	♦	3,480	128	SB	100 - 5,000
Manganese	♦	514	2.6	SB	50 - 5,000
Mercury	♦	0.068	0.061	0.1	0.001 - 0.2
Nickel	♦	14.1	10.2	13 or SB	0.5 - 25
Potassium	♦	1,350	128	SB	8,500 - 43,000 æ
Selenium	♦	ND	1.3	2 or SB	0.1 - 3.9
Silver	♦	ND	2.6	SB	0.1 - 5.0 (n)
Sodium	♦	ND	128	SB	6,000 - 8,000
Thallium	♦	ND	2.6	SB	0.1 - 0.8 (q)
Vanadium	♦	30.5	12.8	150 or SB	1.0 - 300
Zinc	♦	56.8	5.1	20 or SB	9.0 - 50
IGNITIBILITY	♦	>200 °F	200 °F	< 140 °F *	NA
REACTIVITY	♦	ND	25.0	> 250 R-CN, > 500 R-S *	NA
CORROSIVITY	♦	6.52	1.0	≤ 2.0 or ≥ 12.5 *	NA
TPH (mg/kg)	♦	ND	24.3	NA	NA

Note : Numbers in bold exceed cleanup objectives

- Sample analyzed by STL.

NA - Not applicable.

*** - As per TAGM #4046, Total VOCs < 10 ppm., total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/9-

a - Sample analyzed by Environmental Testing Laboratories, Inc

c - Sample analyzed by Severn Trent Laboratories, Inc

b - Found in associated blanks.

e - Estimated concentration; exceeds GC/MS calibration range

j - Estimated concentration; compound present below quantitation limit

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

MDL - Method detection limit.

p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials

(q) - Bowan, H.J., Environmental Chemistry of the Elements

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits

R - Duplicate analysis not within control limits

SB - Site background.

1 - Detection limits for most SVOCs is 0.350 mg/kg. Detection limit for 2,4,5-Trichlorophenol, 2-Nitroaniline, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroaniline, 4,6-Dinitro-2-methylphenol, and Pentachlorophenol is 0.720 mg/kg

1 - Detection limits for most Aroclors is 0.021 mg/kg. Detection for Aroclor 1254 and 1260 is 0.043 mg/kg.

2 - Detection limits for most pesticides is 0.0018 mg/kg. Detection limit for Dieldrin, 4,4'-DDE, Endrin, Endosulfan II, 4,4'-DDD, Endosulfan sulfate, 4,4'-DDT, Endrin ketone, and Endrin aldehyde is 0.0035 mg/kg. Detection limit for methoxychlor is 0.018 mg/kg and detector limit for toxaphene is 0.18 mg/kg.

3 - Detection limits for 2,4-D, 2,4,5-T, and Silvex are 0.028, 0.028, and 0.0028 mg/kg, respectively. Detection limits for remaining herbicides range from 28 to 0.0028 mg/kg.

4 - TAGM criteria for Heptachlor epoxide, Aldrin, Dieldrin, and gamma-BHC are 0.02, 0.041, 0.044, and 0.06 mg/kg, respectively. Criteria for remaining pesticides ranges between 0.01 mg/kg for Heptachlor to 2.9 mg/kg for 4,4'-DDD. There is no criteria for 2,3,7,8-TCDD, Endrin ketone, Mitotane, or PCDF.

2 - TAGM criteria for 2,4-D, 2,4,5-T, and Silvex are 0.5, 0.7, and 1.9 mg/kg, respectively. There are no available criteria for the remaining herbicides.

3 - RCRA Characteristics for hazardous substance

♦ - Not Analyzed

TABLE 9 (page 1 of 2)
(Originally Table 1 (August 2002 Fuel Oil Spill Report))
TRANSFORMER YARD FUEL OIL CONTAMINATION EXCAVATION
DATA SUMMARY
(May 2002)

PART 375											
RECOMMENDED UNRESTRICTED											
PARAMETER	FL-1	FL-1DL	FL-2	NW-1	NW-1DL	SW-1	SW-2	FB-1 (µg/l)	TB-1 (µg/l)	SOIL CLEANUP OBJECTIVE (b)	USE SOIL CLEANUP OBJECTIVE
VOLATILE ORGANICS (mg/kg)											
Acetone	ND	ND	0.064	ND	ND	ND	0.007	5	ND	0.2	0.05
Isopropylbenzene	0.041	0.071 d	ND	0.055	0.130 d	ND	ND	ND	ND	2.3*	NL
1,1,2,2-Tetrachloroethane	ND	ND	ND g	ND	ND	ND	ND	ND	ND	0.6	NL
Bromobenzene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	NL	NL
1,2,3-Trichloropropane	ND	ND	ND g	ND	ND	ND	ND	ND	ND	0.4	NL
n-Propylbenzene	0.065	0.098 d	ND g	0.067	0.150 d	ND	ND	ND	ND	3.7*	3.9
2-Chlorotoluene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	NL	NL
1,3,5-Trimethylbenzene	0.004 j	0.006 dj	ND g	ND	ND	ND	ND	ND	ND	NL	8.4
4-Chlorotoluene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	NL	NL
tert-Butylbenzene	0.014	0.024 d	ND g	0.018	0.055 dj	ND	ND	ND	ND	NL	5.9
1,2,4-Trimethylbenzene	0.008	0.015 dj	ND g	ND	ND	ND	ND	ND	ND	10**	3.6
sec-Butylbenzene	0.084	0.160 d	ND g	0.110	0.360 d	ND	ND	ND	ND	10**	11
4-Isopropyltoluene	0.007	0.007 dj	ND g	ND	ND	ND	ND	ND	ND	10**	NL
1,3-Dichlorobenzene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	1.6	2.4
1,4-Dichlorobenzene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	8.5	1.8
n-Butylbenzene	0.071	0.140 d	ND g	0.067	0.260 d	ND	ND	ND	ND	NL	12
1,2-Dichlorobenzene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	7.9	1.1
1,2-Dibromo-3-chloropropane	ND	ND	ND g	ND	ND	ND	ND	ND	ND	NL	NL
1,2,4-Trichlorobenzene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	3.4	NL
Hexachlorobutadiene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	NL	NL
Naphthalene	ND	ND	ND g	ND	ND	ND	0.004 jb	ND	ND	13*	12
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	31	ND	0.1	0.05
1,2,3-Trichlorobenzene	ND	ND	ND g	ND	ND	ND	ND	ND	ND	NL	NL

- Note - Numbers in bold exceed objectives. Numbers in italics exceed Track 1 SCOs; all samples analyzed by Mitkem Corporation
- NR - Not analyzed.
- NL - No limit.
- * - From NYSDEC Recommended Soil Cleanup Objectives for Fuel Oil Contaminated Soil. (b) All other Values are from 1/94 NYSDEC TAGM
- ** - As per TAGM #4046, Total VOCs < 10 ppm.,
- *** - Individual non-carcinogenic SVOCs ≤ 50 ppm and total SVOCs not listed (tentatively identified compounds (TICs)) ≤ 500 mg/kg.
- j - Estimated concentration; compound present below quantitation limit.
- b - Found in associated blanks.
- d - Concentration recovered from diluted sample.
- DL - Diluted sample analysis.
- g - Slightly estimated concentration based on data validator's report.

TABLE 9 (page 2 of 2)
(Originally Table 1 (August 2002 Fuel Oil Spill Report))
TRANSFORMER YARD FUEL OIL CONTAMINATION EXCAVATION
DATA SUMMARY
(May 2002)

PART 375											
RECOMMENDED UNRESTRICTED											
PARAMETER	FL-1	FL-1DL	FL-2	NW-1	NW-1DL	SW-1	SW-2	FB-1 (µg/l)	TB-1 (µg/l)	SOIL CLEANUP OBJECTIVE (b)	USE SOIL CLEANUP OBJECTIVE
SEMIVOLATILE ORGANICS (mg/kg)											
2-Methylnaphthalene	0.230 j	NR	ND	0.610	NR	ND	ND	ND	NR	36.4	NL
Acenaphthalene	0.053 j	NR	ND	ND	NR	ND	ND	ND	NR	50.0 ***	100 ^a
Acenaphthene	ND	NR	ND	0.220 j	NR	ND	ND	ND	NR	50.0 ***	20
Dibenzofuran	0.140 j	NR	ND	0.250 j	NR	ND	ND	ND	NR	6.2	NL
Fluorene	0.250 j	NR	ND	0.410 j	NR	ND	ND	ND	NR	50.0 ***	30
4,6-Dinitro-2-methylphenol	ND g	NR	ND	ND	NR	ND	ND	ND	ND	NL	NL
N-Nitrosodiphenylamine	ND g	NR	ND	ND	NR	ND	ND	ND	ND	NL	NL
4-Bromophenyl-phenylether	ND g	NR	ND	ND	NR	ND	ND	ND	ND	NL	NL
Hexachlorobenzene	ND g	NR	ND	ND	NR	ND	ND	ND	ND	0.41	0.33 ^b
Pentachloropenol	ND g	NR	ND	ND	NR	ND	ND	ND	ND	1 or MDL	0.8 ^b
Phenanthrene	0.590 g	NR	ND	0.870	NR	ND	ND	ND	NR	50.0 ***	100
Anthracene	0.110 j g	NR	ND	0.190 j	NR	ND	ND	ND	NR	50.0 ***	100 ^a
Carbazole	ND g	NR	ND	ND	NR	ND	ND	ND	ND	NL	NL
Di-n-butylphthalate	ND g	NR	ND	ND	NR	ND	ND	ND	ND	8.1	NL
Fluoranthene	0.120 j g	NR	ND	0.160 j	NR	ND	ND	ND	NR	50.0 ***	100 ^a
Pyrene	0.220 j	NR	ND	0.340 j	NR	ND	ND	ND	NR	50.0 ***	100
Benzo(a)anthracene	0.085 j	NR	ND	0.110 j	NR	ND	ND	ND	NR	0.224 or MDL	1 ^c
Chrysene	0.100 j	NR	ND	0.140 j	NR	ND	ND	ND	NR	0.4	1 ^c
Benzo(b)fluoranthene	0.045 j	NR	ND	0.053 j	NR	ND	ND	ND	NR	0.22 *	1 ^c
Benzo(a)pyrene	0.052 j	NR	ND	0.067 j	NR	ND	ND	ND	NR	0.061 or MDL	1 ^c

Note : Numbers in bold exceed objectives. Numbers in italics exceed Track 1 SCOs; all samples analyzed by Mitkem Corporation

NR - Not analyzed.

NL - No limit.

* - From NYSDEC Recommended Soil Cleanup Objectives for Fuel Oil Contaminated Soil. (b) All other Values are from 1/94 NYSDEC TAGM

** - As per TAGM #4046, Total VOCs < 10 ppm.,

*** - Individual non-carcinogenic SVOCs ≤ 50 ppm and total SVOCs not listed (tentatively identified compounds (TICs)) ≤ 500 mg/kg.

j - Estimated concentration; compound present below quantitation limit.

b - Found in associated blanks.

d - Concentration recovered from diluted sample.

DL - Diluted sample analysis.

g - Estimated concentration based on data validator's report.

a - The SCOs for unrestricted use were capped at a maximum value of 100ppm (mg/kg).

b - For constituents where the calculated SCO was lower than the contract required quantitation limit (CQRL), the CQRL is used as the Track 1 SCO value

c - For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO for this use of the site

TABLE 10 (Page 1 of 1)

Originally Table 6-4 (June 2001 Remediation Report)

E-A-25 SOIL DATA SUMMARY
EADEC-E AREA
(January 1998)

PARAMETER	E-A-25	RE E-A-25	DL E-A-25	E-A-25	EAFC-04 (µg/l)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES
VOLATILE ORGANICS (mg/kg)								
Methylene chloride	1.1 b e	♦	0.049 b j	♦	4 b j	0.1	NA	100 ^k
Acetone	0.22 b	♦	0.39 b	♦	5 b j	0.2	NA	100 ^k
2-Butanone	0.062	♦	0.17	♦	1 j	0.3	NA	100 ^k
4-Methyl-2-pentanone	0.25 b	♦	ND	♦	ND	1.0	NA	NL
SEMIVOLATILE ORGANICS (mg/kg)								
Naphthalene	0.95	0.71	♦	♦	ND	13	NA	100 ^k
2-Methylnaphthalene	2.9	2.6	♦	♦	ND	36.4	NA	NL
Acenaphthene	0.50	0.51	♦	♦	ND	41	NA	100 ^k
Dibenzofuran	0.45 j	0.41 j	♦	♦	ND	6.2	NA	NL
Fluorene	1.0	0.89	♦	♦	ND	50.0***	NA	100 ^k
Phenanthrene	2.0	1.7	♦	♦	ND	50.0***	NA	100 ^k
Anthracene	0.36 j	0.33 j	♦	♦	ND	50.0***	NA	100 ^k
Fluoranthene	0.32 j	0.26 j	♦	♦	ND	50.0 ***	NA	100 ^k
Pyrene	0.36 j	0.35 j	♦	♦	ND	50.0 ***	NA	100 ^k
Benzo(a)anthracene	0.12 j	0.10 j	♦	♦	ND	0.224 or MDL	NA	1 ⁱ
Chrysene	0.15 j	0.13 j	♦	♦	ND	0.4	NA	1 ⁱ
Benzo(b)fluoranthene	0.086 j	0.070 j	♦	♦	ND	1.1	NA	1 ⁱ
Benzo(k)fluoranthene	0.071 j	0.060 j	♦	♦	ND	1.1	NA	3.9
Benzo(a)pyrene	0.11 j	0.096 j	♦	♦	ND	0.061 or MDL	NA	1 ⁱ
PESTICIDES/PCBs (mg/kg)								
alpha-BHC	0.0025 b	♦	♦	♦	ND	0.11	NA	0.48
Endrin	0.0047 j p	♦	♦	♦	ND	0.1	NA	11
Aroclor 1254	ND	♦	♦	ND	ND	1.0/10*	NA	1
Aroclor 1260	ND	♦	♦	ND	ND	1.0/10*	NA	1
METALS (mg/kg)								
Aluminum	6,900 R	♦	♦	♦	53 B	SB	33,000	NL
Antimony	0.77 B N	♦	♦	♦	ND	SB	0.6 - 10 (n)	NL
Arsenic	12 E	♦	♦	♦	ND	7.5 or SB	3.0 - 12.0 æ	16 ^j
Barium	59	♦	♦	♦	2.6 B	300 or SB	15 - 600	400
Beryllium	0.44 B	♦	♦	♦	0.10 B	0.16 or SB	0 - 1.75	72
Cadmium	ND	♦	♦	♦	ND	1 or SB	0.1 - 1.0	4.3
Calcium	874	♦	♦	♦	109 B	SB	130 - 35,000 æ	NL
Chromium	17	♦	♦	♦	ND	10 or SB	1.5 - 40.0 æ	110/180 ^m
Cobalt	7.1 B	♦	♦	♦	ND	30 or SB	2.5 - 60.0 æ	NL
Copper	29	♦	♦	♦	ND	25 or SB	1.0 - 50.0	270
Iron	18,100 R	♦	♦	♦	85 B	2,000 or SB	2,000 - 550,000	NL
Lead	61	♦	♦	♦	3.5	SB**	4.0 - 61 or 200 - 500**	400
Magnesium	1,890	♦	♦	♦	16 B	SB	100 - 5,000	NL
Manganese	89 R	♦	♦	♦	1.5 B	SB	50 - 5,000	2000 ⁱ
Mercury	0.13	♦	♦	♦	ND	0.1	0.001 - 0.2	0.81 ^o
Nickel	14 E	♦	♦	♦	ND	13 or SB	0.5 - 25	310
Potassium	1,130	♦	♦	♦	15 B	SB	8,500 - 43,000 æ	NL
Selenium	2.4	♦	♦	♦	ND	2 or SB	0.1 - 3.9	180
Silver	ND	♦	♦	♦	ND	SB	0.1 - 5.0 (n)	180
Sodium	97 B E	♦	♦	♦	ND	SB	6,000 - 8,000	NL
Thallium	0.72 B	♦	♦	♦	ND	SB	0.1 - 0.8 (q)	NL
Vanadium	25	♦	♦	♦	ND	150 or SB	1.0 - 300	NL
Zinc	131	♦	♦	♦	7.6 B	20 or SB	9.0 - 50	10000 ^q
Cyanide	ND	♦	♦	♦	ND	****	N/A	27

Note : Numbers in bold exceed TAGM 4046 objectives. Numbers in italics exceed Part 375 restricted residential objectives

♦ - Not analyzed.

*** - As per TAGM #4046, Total VOCs < 10 ppm, total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/9-

a - Sample analyzed by Environmental Testing Laboratories, Inc

c - Sample analyzed by Severn Trent Laboratories, Inc. in December 1997

b - Found in associated blanks.

e - Estimated concentration; exceeds GC/MS calibration range

j - Estimated concentration; compound present below quantitation limit

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

MDL - Method detection limit.

p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials

(q) - Bowan, H.J., Environmental Chemistry of the Elements

B - Value is less than the contract-required detection limit but greater than the instrument detection limit

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits

R - Duplicate analysis not within control limits

SB - Site background.

k - The SCOs for restricted-residential use were capped at a maximum value of 100 ppm (mg/kg).

l - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department of DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for use at this site.

m - First value is for hexavalent chromium, second value i for trivalent chromium. The SCO for this specific cpd is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

d - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

q - The SCOS for metals were capped at a maximum value of 10,000 ppm (mg/kg).

TABLE 11 (Page 1 of 2)

Originally Table 7-17 (June 2001 Remediation Report)

POST REMEDIATION DATA SUMMARY
CABLE VAULT SUMP DRAINPIPE EXCAVATION
(May 1998 - June 1998)

PARAMETER	AFTER DRAINPIPE REMOVAL			AFTER FINAL EXCAVATION				RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	PART 375 RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES
	CVDP-02	DL	DL	CVDP-04	CVDP-05	CVDP-06	DL		
	ETL 8'	CVDP-02 ETL 8'	CVDP-02 ETL 8'	ETL 11 - 12'	ETL 6 - 9'	ETL 6 - 9'	CVDP-06 ETL 6 - 9'		
VOLATILE ORGANICS (mg/kg)	ND	♦	♦	♦	♦	♦	♦		NA
SEMIVOLATILE ORGANICS (mg/kg)		[DL:10:1]	[DL:20:1]				[DL: 10:1]		
Naphthalene	2.48	ND	ND	ND	ND	0.185	ND	13.0	100 ^d
2-Methylnaphthalene	2.1	ND	ND	ND	ND	ND	ND	36.4	NA
Acenaphthylene	2.52	ND	ND	ND	ND	0.385	ND		100 ^d
Acenaphthene	¹	8.47	ND	ND	ND	0.802	ND	41.0	100 ^d
Dibenzofuran	3.48	ND	ND	ND	ND	0.448	ND	6.2	NA
Fluorene	¹	9.95	ND	ND	ND	0.817	ND	50.0 ***	100 ^d
Phenanthrene	¹	¹	62.0	ND	ND	¹	9.75	50.0 ***	100 ^d
Anthracene	¹	16.9	ND	ND	ND	1.84	ND	50.0 ***	100 ^d
Fluoranthene	¹	¹	53.1	ND	0.335	¹	10.2	50.0 ***	100 ^d
Pyrene	¹	¹	52.9	ND	0.459	¹	11.1	50.0 ***	100 ^d
Benzo(a)anthracene	¹	22.6	ND	ND	0.232	¹	5.89	0.224 or MDL	1 ^f
Chrysene	¹	19.3	ND	ND	0.212	¹	4.81	0.4	3.9
bis(2-Ethylhexyl)phthalate	¹	ND	ND	ND	0.859	0.538	ND	50.0 ***	NA
Benzo(b)fluoranthene	¹	22	ND	ND	0.281	¹	5.32	1.1	1 ^f
Benzo(k)fluoranthene	¹	8.71	ND	ND	ND	1.66	ND	1.1	3.9
Benzo(a)pyrene	¹	19.3	ND	ND	0.257	4.26	ND	0.061 or MDL	1 ^f
Indeno(1,2,3-c,d)pyrene	¹	9.85	ND	ND	0.147	2.04	ND	3.2	0.5 ^f
Benzo(g,h,i)perylene	¹	11.9	ND	ND	0.183	2.45	ND	50.0 ***	100 ^d

Note : Numbers in bold exceed TAGM 4046 objectives. Numbers in italics exceed Part 375 restricted residential use objectives.

¹ - Value exceeded calibration range and needed further dilution to obtain an accurate value.

♦ - Not analyzed.

*** - As per TAGM #4046, Total VOCs < 10 ppm.,
total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

e - Estimated concentration; exceeds GC/MS calibration range.

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

MDL - Method detection limit.

d - The Soil objectives (SCOs) for restricted-residential use were capped at a maximum value of 100 ppm (mg/kg).

f - For constituents where the calculated SCO was lower than the rural soil background concentration

as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

TABLE 11 (Page 2 of 2)

Originally Table 7-17 (June 2001 Remediation Report)

POST REMEDIATION DATA SUMMARY
CABLE VAULT SUMP DRAINPIPE EXCAVATION
(May 1998 - June 1998)

PARAMETER	AFTER DRAINPIPE REMOVAL CVDP-02 ETL 8'	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES
SAMPLE DEPTH (FT)				
METALS (mg/kg)				
Aluminum	8220	SB	33,000	NA
Antimony	ND	SB	0.6 - 10 (n)	NA
Arsenic	2.69	7.5 or SB	3.0 - 12.0 æ	16 ^f
Barium	55.6	300 or SB	15 - 600	400
Beryllium	0.415	0.16 or SB	0 - 1.75	72
Cadmium	ND	1 or SB	0.1 - 1.0	4.3
Calcium	4820	SB	130 - 35,000 æ	NA
Chromium	16.7	10 or SB	1.5 - 40.0 æ	hexavalent ^h - 110 / trivalent ^h - 180
Cobalt	6.63	30 or SB	2.5 - 60.0 æ	NA
Copper	30.1	25 or SB	1.0 - 50.0	270
Iron	11800	2,000 or SB	2,000 - 550,000	NA
Lead	173	SB*	4.0 - 61 or 200 - 500*	400
Magnesium	2,810	SB	100 - 5,000	NA
Manganese	186	SB	50 - 5,000	2000 ^f
Mercury	0.081	0.1	0.001 - 0.2	0.81 ^g
Nickel	12.6	13 or SB	0.5 - 25	140
Potassium	1,690	SB	8,500 - 43,000 æ	NA
Selenium	ND	2 or SB	0.1 - 3.9	180
Silver	ND	SB	0.1 - 5.0 (n)	180
Sodium	336	SB	6,000 - 8,000	NA
Thallium	ND	SB	0.1 - 0.8 (q)	NA
Vanadium	24	150 or SB	1.0 - 300	NA
Zinc	64.5	20 or SB	9.0 - 50	10000 ⁱ
Cyanide	ND	**	N/A	27

Note : Numbers in bold exceed TAGM 4046 objectives. Numbers in italics exceed Part 375 restricted residential use objectives.

* - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowan, H.J., Environmental Chemistry of the Elements.

^f - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

^g - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

^h - The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the species SCO.

ⁱ - The SCOS for metals were capped at a maximum value of 10,000 ppm (mg/kg).

TABLE 12 (Page 1 of 1)

Originally Table 6-16 (June 2001 Remediation Report)

TRENCH INVESTIGATION SOIL DATA SUMMARY
(December 1997)

PARAMETER	TI-01 STL	TI-02 H2M	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES
Total METALS (mg/kg)					
Silver	♦	ND	SB	0.1 - 5.0 (n)	180
Arsenic	♦	6.4	7.5 or SB	3.0 - 12.0 æ	16 ^d
Barium	♦	87.8	300 or SB	15 - 600	400
Cadmium	♦	ND	1 or SB	0.1 - 1.0	4.3
Chromium	♦	9.1	10 or SB	1.5 - 40.0 æ	110/180 ^u
Mercury	♦	ND	0.1	0.001 - 0.2	0.81 ^c
Lead	♦	282	SB**	4.0 - 61 or 200 - 500**	400
Selenium	♦	0.9	2 or SB	0.1 - 3.9	180
Total Solids	♦	85.30%		NA	NL
Flash Point	♦	ND	> 60° C	NA	NL
pH (Corros.)	♦	9.7 Units	<2 / >12.5	NA	NL
PCBs (mg/kg)					
Aroclor 1254	ND	♦	10*	NA	1
Aroclor 1260	2.6	♦	10*	NA	1
Sample Depth	3-4 ft				

Note: - Numbers in italics exceed Part 375 restricted residential objectives.

♦ - Not analyzed.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations. Sample collected from 3-4 ft below grade.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

ND - Not detected at analytical detection limit.

NA - Not applicable.

NL - None listed.

SB - Site background.

a - For constituents where the calculateds SCO was lower than the rural soil background concentration as determined by the Department of DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for use at this site.

b - First value is for hexavalent chromium, second value is for trivalent chromium. The SCO for this specific cpd is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

c - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

TABLE 13 (1 of 1)

Originally Table 6-3 (June 2001 Remediation Report)

WTD-01 SOIL DATA SUMMARY
ADJACENT RESIDENTIAL PROPERTY
V. Lockwood (March 1998)

PARAMETER	WTD-01 ^a	WTD-01 ^c	EAFB-04 (µg/l)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)	PART 375 RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES
VOLATILE ORGANICS (mg/kg)						
Methylene chloride	ND	♦	4 b j	0.1	NA	100 ^k
Acetone	ND	♦	5 b j	0.2	NA	100 ^k
2-Butanone	ND	♦	1 j	0.3	NA	100 ^k
SEMIVOLATILE ORGANICS (mg/kg)						
Fluoranthene	1.32	♦	ND	50.0 ***	NA	100 ^k
Pyrene	0.50	♦	ND	50.0 ***	NA	100 ^k
Benzo(a)anthracene	0.29	♦	ND	0.224 or MDL	NA	1 ^l
Chrysene	0.27	♦	ND	0.4	NA	1 ^l
bis(2-Ethylhexyl)phthalate	0.15	♦	1 b j	50.0 ***	NA	NL
Benzo(b)fluoranthene	0.36	♦	ND	1.1	NA	1 ^l
Benzo(a)pyrene	0.31	♦	ND	0.061 or MDL	NA	1 ^l
Indeno(1,2,3-c,d)pyrene	0.20	♦	ND	3.2	NA	0.5 ^m
Benzo(g,h,i)perylene	0.21	♦	ND	50.0 ***	NA	100 ^d
PESTICIDES/PCBs (mg/kg)						
Aroclor 1254	ND	ND	ND	1.0/10*	NA	1
Aroclor 1260	ND	ND	ND	1.0/10*	NA	1
METALS (mg/kg)						
Aluminum	9,510	♦	53 B	SB	33,000	NL
Antimony	ND	♦	ND	SB	0.6 - 10 (n)	NL
Arsenic	7.4	♦	ND	7.5 or SB	3.0 - 12.0 æ	16 ⁱ
Barium	53	♦	2.6 B	300 or SB	15 - 600	400
Beryllium	0.48	♦	0.10 B	0.16 or SB	0 - 1.75	72
Cadmium	0.85	♦	ND	1 or SB	0.1 - 1.0	4.3
Calcium	1,720	♦	109 B	SB	130 - 35,000 æ	NL
Chromium	20	♦	ND	10 or SB	1.5 - 40.0 æ	110/180 ^m
Cobalt	6.7	♦	ND	30 or SB	2.5 - 60.0 æ	NL
Copper	30	♦	ND	25 or SB	1.0 - 50.0	270
Iron	9,190	♦	85 B	2,000 or SB	2,000 - 550,000	NL
Lead	60	♦	3.5	SB**	4.0 - 61 or 200 - 500**	400
Magnesium	2,480	♦	16 B	SB	100 - 5,000	NL
Manganese	102	♦	1.5 B	SB	50 - 5,000	2000 ^j
Mercury	0.34	♦	ND	0.1	0.001 - 0.2	0.81 ^d
Nickel	31	♦	ND	13 or SB	0.5 - 25	310
Potassium	495	♦	15 B	SB	8,500 - 43,000 æ	NL
Selenium	3.5	♦	ND	2 or SB	0.1 - 3.9	180
Silver	ND	♦	ND	SB	0.1 - 5.0 (n)	180
Sodium	ND	♦	ND	SB	6,000 - 8,000	NL
Thallium	ND	♦	ND	SB	0.1 - 0.8 (q)	NL
Vanadium	23	♦	ND	150 or SB	1.0 - 300	NL
Zinc	88	♦	7.6 B	20 or SB	9.0 - 50	10000 ^d
Cyanide	ND	♦	ND	****	N/A	27

Note : Numbers in bold exceed TAGM 4046 cleanup objectives. Numbers in italics exceed Part 375 objectives.

♦ - Not analyzed.

*** - As per TAGM #4046, Total VOCs < 10 ppm., total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

a - Sample analyzed by Environmental Testing Laboratories, Inc.

c - Sample analyzed by Severn Trent Laboratories, Inc.

b - Found in associated blanks.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowan, H.J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

ND - Not detected at analytical detection limit.

SB - Site background.

FB - Field blank

k - The SCOs for restricted-residential use were capped at a maximum value of 100 ppm (mg/kg).

l - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department of DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for use at this site.

m - First value is for hexavalent chromium, second value is for trivalent chromium. The SCO for this specific cpd is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

d - This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts).

q - The SCOS for metals were capped at a maximum value of 10,000 ppm (mg/kg).

TABLE 14 (1 of 1)

Originally Table 5-14 (July 2003 Remediation Report Addendum)

MONITORING WELL GROUNDWATER DATA SUMMARY
(August 2002)

PARAMETER	EAMW-1	EAMW-4	EAMW-8 (Blind Duplicate of EAMW-4)	Trip Blank	NYSDEC CLASS GA GROUNDWATER STANDARD ^a
VOLATILE ORGANICS (ug/L)	ND	ND	ND	ND	-
SEMIVOLATILE ORGANICS (ug/L)					
bis(2-Ethylhexyl)phthalate	2 j	4 j	4 j	NR	5
Tentatively Identified Compounds					
Caprolactam	19 nj	69 nj	52 nj	NR	NS
Unknown	14 j	ND	ND	NR	NS
PESTICIDES (ug/L)	ND	ND	ND	NR	-
PCBs (ug/L)^b	ND	ND	ND	NR	0.09
METALS (ug/L)^c					
Aluminum	378 NJ/17.4 BNJ	115 BNJ/ND NJ	63.6 BNJ/ND NJ	NR	NS
Antimony	4 BJ /ND J	5.7 BJ /ND J	3.8 BJ /ND J	NR	3
Arsenic	18.6J/ND J	34.8J /ND J	26.5J /ND J	NR	25
Barium	94.5 BNJ/41.5 BNJ	113 BNJ/81.8 BNJ	105 BNJ/75 BNJ	NR	1,000
Beryllium	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	3 GV
Cadmium	ND J/ND J	ND J/ND J	ND J/ND J	NR	5
Calcium	21,100 J/19,400 J	240,000 J/238,000 J	213,000 J/215,000 J	NR	NS
Chromium	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	50
Cobalt	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	NS
Copper	38 NJ/9.1 BNJ	18.3 BNJ/2.3 BNJ	16 BNJ/2.3 BNJ	NR	200
Iron	25,200 NJ/337 NJ	29,400 NJ/89.9 BNJ	24,500 NJ/579 NJ	NR	300 ^d
Lead	19.2 NJ/ND NJ	10.4 NJ/ND NJ	5.8 BNJ/ND NJ	NR	25
Magnesium	5,730 J/5,640 J	602,000 J/613,000 J	558,000 J/638,000 J	NR	35,000 GV
Manganese	248 NJ/149 NJ	771 NJ/389 NJ	628 NJ/265 NJ	NR	300 ^d
Mercury	ND J/ND J	ND J/ND J	ND J/ND J	NR	0.7
Nickel	9.7 BNJ/4.6 BNJ	3.2 BNJ/2.3 BNJ	2.4 BNJ/2.3 BNJ	NR	100
Potassium	5,630 EJ/5,000 EJ	254,000 EJ/270,000 EJ	269,000 EJ/282,000 EJ	NR	NS
Selenium	ND J/ND J	9.4 BJ/ND J	ND J/ND J	NR	10
Silver	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	50
Sodium	15,600 J/15,700 J	4,940,000 J/5,270,000 J	5,110,000 J/5,310,000 J	NR	20,000
Thallium	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	0.5 GV
Vanadium	12.6 BNJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	NS
Zinc	216 NJ/67.1 NJ	33.1 BNJ/ND NJ	24.2 BNJ/ND NJ	NR	2,000 GV
Cyanide	ND/NR	5.3 B/NR	ND/NR	NR	200.0

Note : Numbers in bold exceed groundwater standards or guidance values.

- All samples analyzed by Mitkem.

NR - Not analyzed.

ND - Not detected at analytical detection limit.

GV - Guidance value.

NS - No standard.

j - Estimated concentration; compound present below quantitation limit.

J - Estimated concentration due to matrix effect on recovery of target analytes.

n - presumptive evidence of a compound (used only for TICs).

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

N - Spike sample recovery is not within control limits.

E - Value estimated due to interference.

a - From NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitation, June 1998.

b - PCBs analyzed by low-level method (detection limit of 0.05 ug/L).

c - First value is for total metal, second value is for dissolved metal.

d - Iron and Manganese not to exceed 500 ug/L.

APPENDIX A
METES AND BOUNDS

APPENDIX "A"

METES AND BOUNDS DESCRIPTION OF THE EASTERN PARCEL OF THE PROPERTY

The Eastern Parcel subject to this Declaration of Covenants and Restrictions consists of all that certain plot, piece, or parcel of land situate, lying and being in the Town of New Rochelle, County of Westchester, State of New York, said being more particularly bounded and described as follows:

BEGINNING at a point on the northerly division line of the lands of Consolidated Edison Company of New York, Inc. and the lands now or formerly of Jonel Development Corp., said point being the following three (3) courses from the intersection of said sideline with the northeasterly sideline of Decatur Road (also known as Farragut Circle):

1. North 36° 40' 59" west for a distance 69.81 feet to a point; thence
2. North 35° 36' 25" west for a distance 150.00 feet to a point; thence
3. North 60° 29' 35" east for a distance 275.98 feet to the point of **BEGINNING**;

RUNNING THENCE along the common division line of the lands of Consolidated Edison Company of New York, Inc. and the lands of Jonel Development Corp., North 60° 29' 35" east for a distance 362.02 feet to a point on the former mean high water mark (1876/1888);

RUNNING THENCE along said former mean high water mark (1876/1888) the following seventeen (17) courses:

1. South 10° 40' 50" east for a distance of 27.23 feet to a point; thence
2. South 05° 35' 19" west for a distance of 12.76 feet to a point; thence
3. South 45° 15' 29" west for a distance of 15.87 feet to a point; thence
4. South 60° 41' 01" west for a distance of 32.49 feet to a point; thence
5. South 56° 29' 47" west for a distance of 27.47 feet to a point; thence
6. North 77° 25' 30" east for a distance of 14.14 feet to a point; thence
7. North 63° 57' 18" east for a distance of 10.63 feet to a point; thence
8. North 60° 47' 21" east for a distance of 50.82 feet to a point; thence
9. North 35° 18' 29" east for a distance of 11.38 feet to a point; thence
10. North 09° 10' 40" east for a distance of 13.54 feet to a point; thence
11. North 68° 58' 39" east for a distance of 34.22 feet to a point; thence
12. South 81° 54' 55" east for a distance of 7.69 feet to a point; thence
13. South 55° 07' 47" east for a distance of 6.55 feet to a point; thence
14. South 03° 56' 50" west for a distance of 4.01 feet to a point; thence
15. South 38° 05' 33" west for a distance of 4.78 feet to a point; thence

16. South 24° 06' 27" west for a distance of 13.41 feet to a point; thence
17. South 45° 27' 37" west for a distance of 1.72 feet to a point on the mean high water line as observed on July 21, 2009;

RUNNING THENCE along said mean high water line the following seven (7) courses:

1. South 07° 34' 41" east for a distance 15.64 feet to a point; thence
2. South 47° 40' 58" east for a distance 16.23 feet to a point; thence
3. South 75° 03' 18" east for a distance 15.99 feet to a point; thence
4. South 57° 54' 32" east for a distance 31.59 feet to a point; thence
5. North 67° 16' 46" east for a distance 3.11 feet to a point; thence
6. South 81° 12' 13" east for a distance 2.99 feet to a point; thence
7. South 05° 18' 55" east for a distance 44.44 feet to a point on the common division line of John Turnbull Benjamin III (FM 1906, lot 4) ;

RUNNING THENCE along the common division line with the Map entitled "Sutton Manor Property of the Sutton Manor Realty Company, New Rochelle, Westchester County, N.Y.," as filed in the Westchester County Clerk's Office on June 6, 1910 as Map #1906 and the Map entitled "Amended Map of Sutton Manor, Property of the Sutton Manor Realty Company, New Rochelle, N.Y.," as filed in the Westchester County Clerk's Office on June 28 1904 as Map #1376 the following five (5) courses:

1. South 49° 30' 16" west for a distance 28.00 feet to a point; thence
2. South 09° 59' 43" west for a distance 25.83 feet to a point; thence
3. South 47° 21' 31" west for a distance 52.67 feet to a point; thence
4. South 14° 03' 05" west for a distance 53.76 feet to a point; thence
5. South 81° 10' 05" west for a distance 285.00 feet to a point;

THENCE running through the lands of Consolidated Edison Company of New York, Inc., and along the demarcation line, North 27° 29' 18" west for a distance of 144.27 feet to the point of **BEGINNING**

APPENDIX B

DECLARATION OF COVENANTS AND RESTRICTIONS

&

NYSDEC DECISION DOCUMENT for the ECHO AVE SITE (November 2009)

The Office of the Westchester County Clerk: This page is part of the instrument; the County Clerk will rely on the information provided on this page for purposes of indexing this instrument. To the best of submitter's knowledge, the information contained on this Recording and Endorsement Cover Page is consistent with the information contained in the attached document.



570883402DLR0021

Westchester County Recording & Endorsement Page

Submitter Information

Name: Abstracters' Information Service (pick up by AIS) Phone: 212 949 0100
Address 1: 1111 Marcus Avenue - Suite MZ214 Fax: 212 983 8430
Address 2: Tel: 516-918-4600 Email: gregoryshaw@cltic.com
City/State/Zip: Lake Success NY 11042 Reference for Submitter: 6054288-Abstracters' Information Service

Document Details

Control Number: **570883402** Document Type: **Declaration (DLR)**
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Parties

☐ Additional Parties on Continuation page

1st PARTY

2nd PARTY

1: CONSOLIDATED EDISON CO OF NEW YORK INC - Other 1: CONSOLIDATED EDISON CO OF NEW YORK INC - Other
2: 2:

Property

☐ Additional Properties on Continuation page

Street Address: 78 ECHO AVENUE Tax Designation: 1-84-73
City/Town: NEW ROCHELLE Village:

Cross- References

☐ Additional Cross-Refs on Continuation page

1: 2: 3: 4:

Supporting Documents

1: TP-584

Recording Fees

Statutory Recording Fee: \$40.00
Page Fee: \$40.00
Cross-Reference Fee: \$0.00
Mortgage Affidavit Filing Fee: \$0.00
RP-5217 Filing Fee: \$0.00
TP-584 Filing Fee: \$5.00
Total Recording Fees Paid: **\$85.00**

Transfer Taxes

Consideration: \$0.00
Transfer Tax: \$0.00
Mansion Tax: \$0.00
Transfer Tax Number: 11177

Mortgage Taxes

Document Date:
Mortgage Amount:

Basic: \$0.00
Westchester: \$0.00
Additional: \$0.00
MTA: \$0.00
Special: \$0.00
Yonkers: \$0.00
Total Mortgage Tax: **\$0.00**

Dwelling Type: Exempt: ☐
Serial #:

RECORDED IN THE OFFICE OF THE WESTCHESTER COUNTY CLERK



Recorded: 03/30/2017 at 12:20 PM
Control Number: **570883402**
Witness my hand and official seal

Timothy C. Idoni

Timothy C. Idoni
Westchester County Clerk

Record and Return To

☐ Pick-up at County Clerk's office

Consolidated Edison Company of New York, Inc.
4 Irving Place, Room 1850-S

New York, NY 10003
Attn: Kevin J. Klesh

DECLARATION OF COVENANTS AND RESTRICTIONS

THIS COVENANT is made the 15th day of March 2017, by **CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.** (“**Con Edison**”), a corporation organized and existing under the laws of the State of New York and having an office for the transaction of business at 4 Irving Place, New York, New York:

WHEREAS, the Echo Avenue Site is the subject of Order on Consent Index No. W3-0531-91-02, Site No.3-60016, executed by Con Edison as part of the New York State Department of Environmental Conservation’s (the “**Department**” having an address at 625 Broadway in the City of Albany, NY) State Superfund Program, namely that tract of real property located at 78 Echo Avenue in the City of New Rochelle, County of Westchester, State of New York, being part of the lands conveyed by: (a) Samuel T. Bodine and Eleanor G. Bodine to Westchester Lighting Company, Con Edison’s predecessor company, by deed dated March 3, 1904, and recorded in the Westchester County Clerk’s Office on April 2, 1904, in Liber 1677, Page 265; (b) Sutton Manor Realty Company to Westchester Lighting Company by deed dated March 23, 1906, and recorded in the Westchester County Clerk’s Office on May 12, 1906, in Liber 1750, Page 429; and (c) the State of New York to Con Edison by Letters Patent dated April 24, 2014, and recorded in the Westchester County Clerk’s Office on November 18, 2015, as Control No.553013759, and hereinafter referred to as the “**Property**”; and

WHEREAS, the Department approved a remedy (“**Remedy**”) to eliminate or mitigate all significant threats to the environment presented by the contamination disposed of at the Property and such Remedy requires that the section of the Property known as the “**Eastern Parcel**”, being more particularly described in Appendix “A” attached to this Declaration of Covenants and Restrictions and made a part hereof, be subject to certain restrictive covenants.

NOW, THEREFORE, Con Edison, for itself, for its successors and/or assigns, and for its successors-in-title to the Site, covenants that:

FIRST: The Eastern Parcel subject to this Declaration of Covenants and Restrictions is depicted in Appendix “B” attached to this Declaration of Covenants and Restrictions and made a part hereof.

SECOND: Unless prior approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State of New York and the health of the State’s citizens, hereinafter referred to as “**the Relevant Agency**,” is first obtained, where contamination remains on the Eastern Parcel subject to the provisions of the Site Management Plan approved by the Department for the Eastern Parcel (the “**SMP**”), there shall be no construction, use or occupancy of the Eastern

Parcel that results in the disturbance or excavation of the Eastern Parcel which threatens the integrity of the engineering controls imposed by the Department as part of the remedy for the Property or which results in unacceptable human exposure to contaminated soils on the Eastern Parcel. The Department-approved SMP for the Eastern Parcel may be obtained from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, New York 12233.

THIRD: The owner of the Eastern Parcel shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of the engineering controls required by the Remedy for the Eastern Parcel, which engineering controls are described in the Department-approved SMP for the Eastern Parcel, unless in each instance the owner of the Eastern Parcel first obtains a written waiver of such prohibition from the Department or Relevant Agency.

FOURTH: The owner of the Eastern Parcel shall prohibit the Eastern Parcel from ever being used for purposes other than Restricted Residential use as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial use as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial use as described in 6 NYCRR Part 375-1.8(g)(2)(iv), without the express waiver of such prohibition by the Department or Relevant Agency.

FIFTH: The owner of the Eastern Parcel shall prohibit use of the groundwater underlying the Eastern Parcel without treatment to render such groundwater safe for drinking water or for industrial purposes, as appropriate, and the user of such groundwater must first notify and obtain written approval to do so from the Department or Relevant Agency.

SIXTH: The owner of the Eastern Parcel shall provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place for the Eastern Parcel as part of the Remedy are unchanged from the previous certification, comply with the Department-approved SMP for the Eastern Parcel, and have not been impaired.

SEVENTH: The owner of the Eastern Parcel shall continue in full force and effect any institutional and engineering controls required for the Eastern Parcel by the Remedy and maintain such controls, unless the owner of the Eastern Parcel first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the Department-approved SMP for the Eastern Parcel, which SMP is incorporated and made enforceable hereto, subject to such modifications thereto as may be approved by the Department or Relevant Agency.

EIGHTH: This Declaration of Covenants and Restrictions is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Eastern Parcel, and shall provide that the owner of the Eastern Parcel and its successors and assigns

consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that Order on Consent Index No. W3-0531-91-02, Site No.3-60016, requires be recorded, and hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

NINTH: Any deed of conveyance of the Eastern Parcel, or any portion of Property's Eastern Parcel, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument on the day written below.

**CONSOLIDATED EDISON COMPANY
OF NEW YORK, INC.**

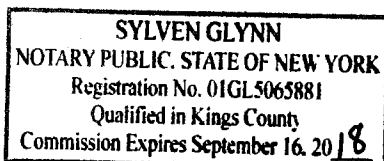
By: J2 21 km/ed Laurie Silberfeld
Title: Director, Real Estate
Date: March 15, 2017

Acknowledgement

State of New York)
) ss.:
County of New York)

On the 15th day of March in the year 2017 before me, the undersigned, personally appeared Laurie Silberfeld, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted executed the instrument.

Sylvan Glynn
Notary Public



DECISION DOCUMENT

**Consolidated Edison Echo Avenue Site
New Rochelle, Westchester County, New York
Site No. 360016
November 2009**

Statement of Purpose and Basis

This Decision Document presents the remedy identified by the Department of Environmental Conservation (Department) for the Consolidated Edison Echo Avenue site (the Site). This decision is based on the investigation and interim remedial measures implemented by the Consolidated Edison Company of New York, Inc. (ConEd) pursuant to the July 15, 1992 Order on Consent for the Site which at that time was a class 2a.

Description of the Site

The 3-acre Site is located at 78 Echo Avenue in New Rochelle, Westchester County, New York. The Site is bordered to the north by Echo Bay, an estuary of the Long Island Sound, to the east and south by residential properties, to the southwest by Echo Bay Avenue, and to the west by a landscaping company (formerly a fuel oil terminal). Access to the Site is restricted by chain link fencing. The Site was originally owned by several ConEd predecessor companies, including the Westchester Lighting Company, which operated a power plant/substation on the eastern portion of the Site, and an outdoor transformer yard on the western portion of the Site. ConEd acquired the site in 1951 when it merged with the Westchester Lighting Company. The power plant continued to operate until 1981 when the substation was retired. The site has not been used for utility or other operations since then.

Nature and Extent of Contamination

The Site has been the subject of an investigation, conducted in multiple phases, which delineated the nature and extent of contamination attributed to past on-site operations. Based on the findings of the investigation, the Site has been divided into two parcels the Eastern Parcel and the Western Parcel (see attached Figure). Analytical data confirmed the primary soil contaminant on both parcels was polychlorinated biphenyls (PCBs). Cadmium, copper, zinc and lead were identified on the Western Parcel within a cinder ash layer in the former transformer yard. Volatile organic compounds (VOCs) and semi-VOCs (SVOCs) associated with a fuel oil release originating from a former oil terminal on an adjacent property, were also identified on the Western Parcel.

Description of the Remedy

Various interim remedial measures (IRMs) were performed at the site from 1996 to 2004. These IRMs entailed the removal and proper off-site disposal of all identified on- and off-Site PCB-containing soils with concentrations greater than 1 part per million (ppm) in the top 2 feet and greater than 10 ppm below two feet. The IRMs also included the removal of all identified PCB-containing sediment in the bay with concentrations greater than 1 ppm.

PCBs had been found at elevated levels in the former substation building, the transformer yard and surrounding soil on the Eastern Parcel. The cleanup of PCBs and other detected contaminants on the Eastern Parcel have mitigated the threat to the environment and in particular to the adjacent natural habitat in Echo Bay.

The cleanup on the Western Parcel included the removal of the identified cinder ash layer containing cadmium, copper, zinc and lead in the former transformer yard. The petroleum contaminated soil associated with a fuel oil release originating from the former oil terminal on an adjacent property was also removed. There are no known drinking water supply wells in the vicinity.

In addition, soil sampling at adjacent residential properties found PCBs in four yards above the cleanup guideline of 1 ppm. These PCB contaminated soils were excavated and properly disposed of off-site. On- and off-Site cleanup of PCBs has been completed, and the majority of the Site (both parcels) and the off-Site areas excavated have been covered with clean fill. The final IRM, which entailed the off-Site removal of sediment in an adjacent mud flat area, was completed in 2004.

Based on the results of the IRMs conducted to date, the Western Parcel requires no further remedial action and, the Eastern Parcel requires the following institutional controls:

1. Since the remedy resulted in residual soil contamination above unrestricted use levels remaining on-site at depth, a site management plan (SMP) will be developed and implemented. The SMP will include institutional controls to: (a) address residual contaminated soils that may be excavated from the site during future redevelopment; (b) require soil characterization and, where applicable, disposal/reuse in accordance with the NYSDEC regulations; (c) provide for the operation and maintenance of the components of the remedy; (d) monitor the groundwater and (e) identify any restrictions on use of the site and groundwater.
2. The SMP will require the property owner to provide a periodic institutional control (IC) certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department, which would certify that the ICs put in place, remain unchanged from the previous certification and nothing has occurred that would impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or soil management plan.
3. Imposition of an IC in the form of a deed restriction or environmental easement that would: (a) require compliance with the approved site management plan; (b) limit the use and development of the property to restricted residential use, which is the land use category which shall only be considered when there is a common ownership or single owner/managing entity of the site; (c) restrict use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the

Westchester County Department of Health and (d) require the property owner to complete and submit to the NYSDEC a periodic IC certification.

Declaration

The selected remedy is protective of human health and the environment consistent with the Order on Consent for the site. It complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action and will allow for the identified use of the site.

November 16, 2009

Date



Robert W. Schick, P.E.
Director, Remedial Bureau C
Division of Environmental Remediation

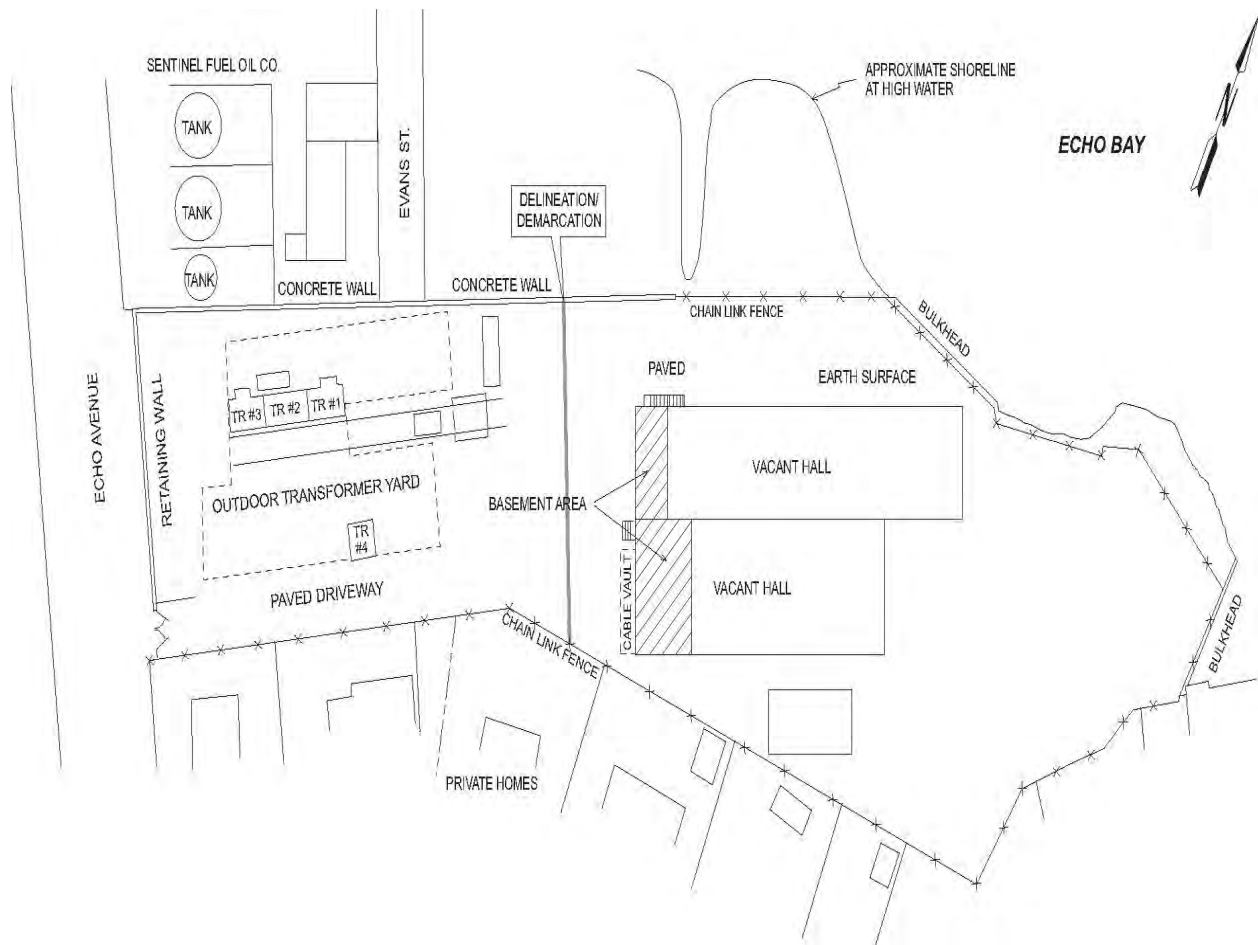


Figure 1 – Parcel Delineation

Not to Scale

From a Figure provided by LMS, Engineers.

APPENDIX C

ECHO AVENUE REMEDIAL CLEANUP SUMMARY REPORT

SEPTEMBER 2008

(See Attached CD)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
New York, New York

**ECHO AVENUE REMEDIAL CLEANUP
SUMMARY REPORT**

June 2007
(Revised January 2008)
(Revised September 2008)



One Blue Hill Plaza
Pearl River, New York 10965

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LIST OF PLATES

Plate No.	Title	Location
1	Concentration of PCBs Remaining On-Site	In Back Pocket In Back of Report

ECHO AVENUE REMEDIAL CLEANUP SUMMARY REPORT

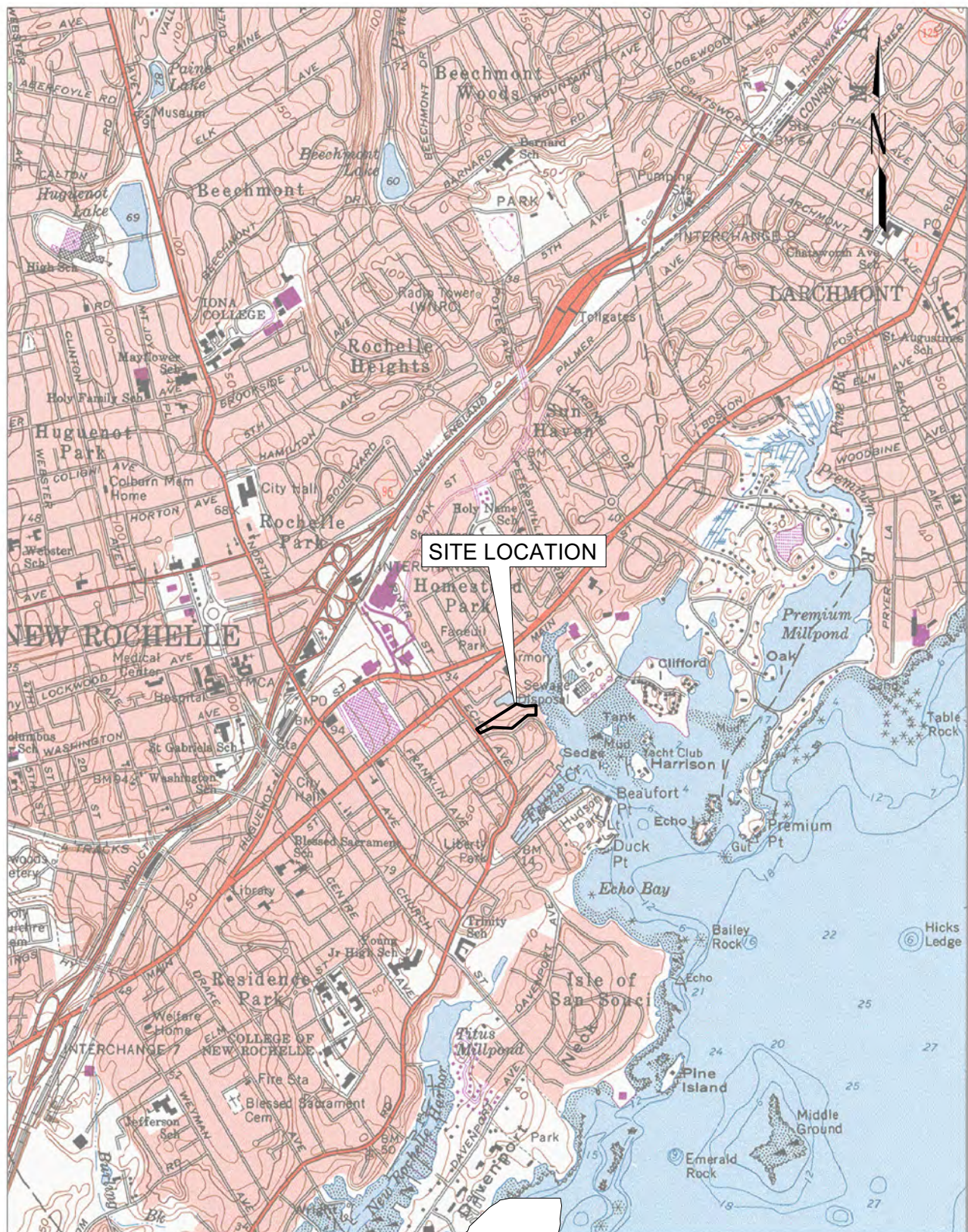
1.0 EXECUTIVE SUMMARY

In response to a request by the New York State Department of Environmental Conservation (“NYSDEC”) and New York State Department of Health (“NYSDOH”), Consolidated Edison of New York, Inc. (“Con Edison”) has prepared this Report to provide a summary of the various phases of NYSDEC-approved investigation and interim remedial measures (“IRM”) that have been completed since 1992 for the Echo Avenue State Superfund Site (Site #3-60-016) pursuant to NYSDEC Administrative Order on Consent Index No. W3-05131-91-02 (“Consent Order”). As specified by the NYSDEC and NYSDOH, this Report includes a compilation of the following information for the Echo Avenue Superfund Site (“Site”) intended to facilitate their evaluation of whether the Site should remain listed in the New York State Registry of Inactive Hazardous Waste Disposal Sites (“Registry”) as a Class 2a site:

- Scope of the NYSDEC-approved IRMs that have been completed for the Site;
- Remedial objectives of the completed NYSDEC-approved IRMs and the rationale for those objectives;
- Site areas for which remediation has not been conducted; and
- A summary of current Site conditions, including the concentration and distribution of contaminants remaining on and adjacent to the Site.

The Site is located at 78 Echo Avenue in New Rochelle, Westchester County, New York (Figure 1-1). It is bordered to the north by Echo Bay, an estuary of the Long Island Sound. It is bordered to the east and south by residential properties, to the southwest by Echo Avenue, and to the west by a former commercial fuel oil terminal (Sentinel Fuel Oil Company) that is now operated as a storage yard for landscaping equipment and supplies (Figure 1-2).

The Site was originally owned by several Con Edison predecessor companies, including the Westchester Lighting Company, which operated a power plant on the Site and an outdoor transformer yard used for the distribution of the electricity generated by the plant. Con Edison acquired the Site in 1951, when the Westchester Lighting Company was merged with and into Con Edison. Con Edison operated an electrical distribution substation at the Site until 1981,



0 2000 ft



SCALE
1 in. = 2000 ft

Map source:
USGS 7.5-minute quadrangle map,
Mt. Vernon, NY, 1966, photorevised 1979.

\\0115-190_SLAB SAMPLING\Graphics\DTP\FinalDraftFigures\Fig1-1_SiteLocation.dsf

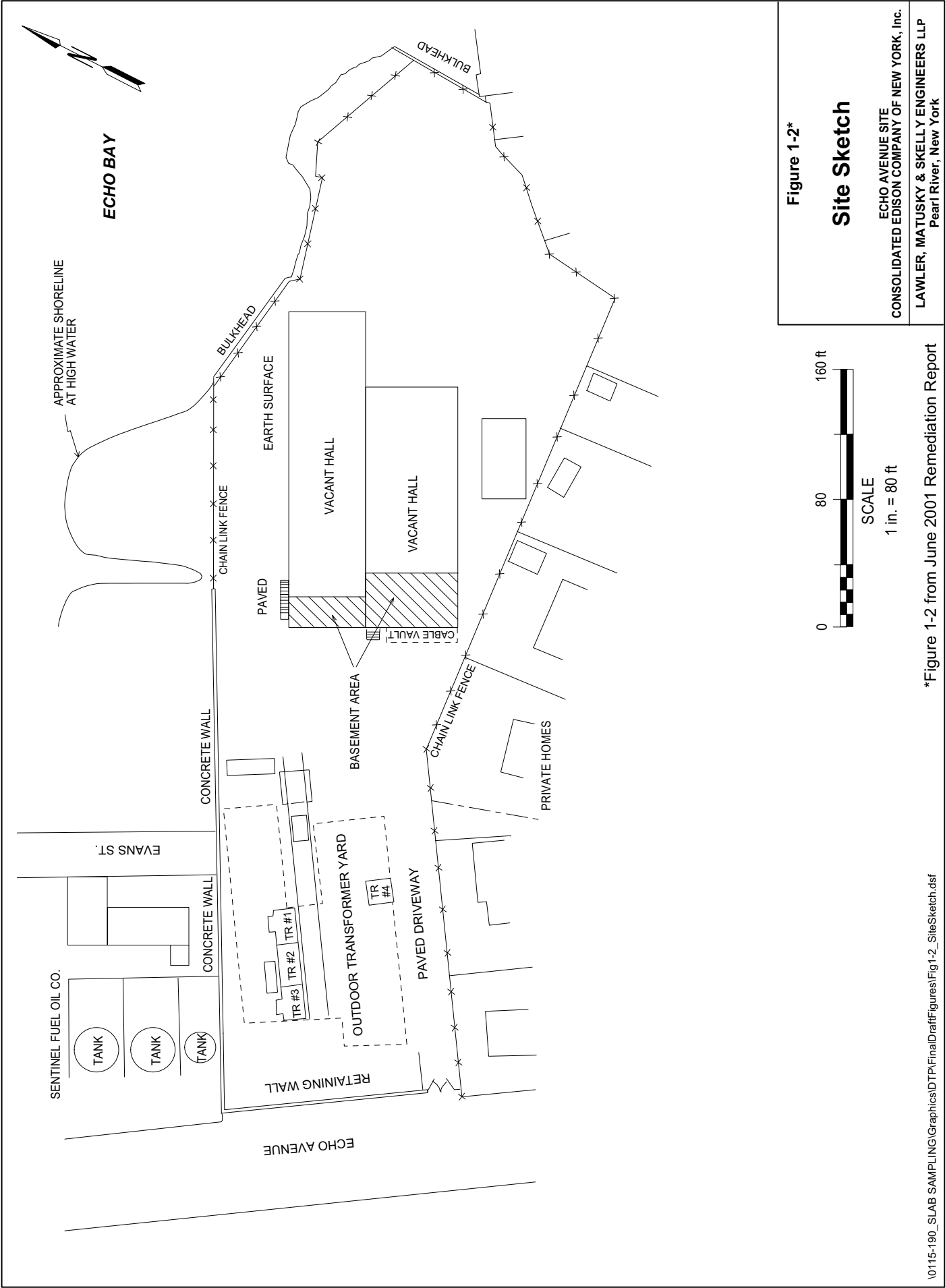
QUADRANGLE
LOCATION

NEW YORK STATE

Figure 1-1

Site Location

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



when the substation was retired. The Site has not been used for utility or other operations since then.¹

In January 1988, after receiving reports from Con Edison that it had been investigating and cleaning up polychlorinated biphenyl ("PCB") contamination at the Site, the NYSDEC included the Site on the Registry as a Class 2a site - a temporary classification assigned to sites with confirmed hazardous waste contamination, but with inadequate information regarding associated environmental and/or human health impacts to be assigned to another Registry classification. On June 15, 1992, the NYSDEC and Con Edison entered into the Order on Consent which obligated Con Edison to conduct a Phase II investigation for the Site pursuant to an NYSDEC-approved work plan. The Consent Order also allowed Con Edison to implement NYSDEC-approved IRMs for the Site under NYSDEC oversight.

The Phase II investigation required under the Consent Order was completed by HDR|LMS [formerly Lawler, Matusky & Skelly Engineers] in 1993. Additional samples were collected on the Site at the request of the NYSDEC in 1995. The results of the Phase II investigation and additional sampling indicated the presence of PCBs in soil above cleanup objectives on the Site. In 1996, Con Edison elected to remediate portions of the Site as an IRM pursuant to work plans approved by the NYSDEC, as permitted by the Consent Order.

The IRMs were conducted in several phases from 1996 until 2004 on various areas of the Site, in the adjacent mudflat area of Echo Bay, and in the backyards of adjoining residential properties. As indicated in the following table, during the 12-year period in which the NYSDEC-approved investigation activities and IRMs for the Site were conducted the remedial objectives for the Site changed.

¹ In 1986, Con Edison and the City of New Rochelle entered into a contract under which Con Edison agreed to sell and the City of New Rochelle agreed to buy the Site after Con Edison had completed sufficient remediation for the Site for it to be used for residential purposes. Title to the Site has not yet been conveyed to the City of New Rochelle. Con Edison and the City of New Rochelle are presently discussing modifications that may be made to the contract before ownership of the Site is transferred to the City of New Rochelle.

MEDIA	DATES	PARAMETER	REMEDIAL OBJECTIVE
On-Site Soil & Sediment	February 1992 to February 1993	PCBs	≤10 mg/kg
		TCL organics	None
		TAL inorganics	Background concentrations from J. Dragun, The Soil Chemistry of Hazardous Materials
	October 1993 to present	PCBs	≤1 mg/kg for soils ≤2 ft deep; ≤10 mg/kg for soils >2 ft deep
		2,3,7,8-Dioxin	<1.0 µg/kg
	January 1994 to present	TCL organics	NYSDEC TAGM 4046
		TAL inorganics	NYSDEC TAGM 4046
Concrete and Other Solid Surfaces	February 1992 to February 1993	PCBs	≤10 µg/100 cm ² in wipe samples
	October 1993 to present	PCBs	≤1 µg/100 cm ² in wipe samples
Mudflat Sediments	July 1996 to 2003	PCBs	≤5 mg/kg
	2003 to present	PCBs	≤1 mg/kg
Groundwater	February 1992 to present	PCBs	Class GA Groundwater Standards
		TCL organics	Class GA Groundwater Standards
		TAL inorganics	Class GA Groundwater Standards
Surface Water	February 1992 to present	PCBs	Class SB Surface Water Standards
		TCL organics	Class SB Surface Water Standards
		TAL inorganics	Class SB Surface Water Standards

Two reports were prepared by HDR|LMS that documented the cleanup of the site, the June 2001 Remediation Report and the July 2003 Remediation Report Addendum. In 2003, Con Edison retained TRC Environmental Corporation (“TRC”) to conduct the remediation of the mudflat area of Echo Bay; this work was completed in 2004 and reported on by TRC in the February 2005 Remedial Action Report. During all remediation work, NYSDEC provided regulatory oversight of the cleanup activities and directed Con Edison as to on whether additional cleanup or excavation work was required.

Based on the results of post-remedial confirmatory sampling that was conducted as part of the NYSDEC-approved IRMs and the results of the NYSDEC-approved investigation for Site areas for which IRMs were not implemented, there are no PCBs on Site, in the Echo Bay mudflat areas, or

adjoining off-Site residential properties that exceed the cleanup objectives specified by the NYSDEC for the Site. These cleanup objectives are ≤ 1 mg/kg PCBs for soils $\leq$ two ft deep, ≤ 10 mg/kg PCBs for soils deeper than two feet, and ≤ 1 mg/kg PCBs for sediment. The cleanup objectives for PCBs in soil are consistent with the recommended soil cleanup objectives (“RSCOs”) specified in NYSDEC *Technical and Administrative Guidance Memorandum 4046: Determination of Soil Cleanup Objectives and Cleanup Levels* (“TAGM 4046”) published on January 24, 1994.

Based on the same data, there are no known on-Site lead concentrations that exceed the TAGM 4046 RSCO of <500 mg/kg of lead in soils in urban areas. However, there were sporadic exceedances of the TAGM RSCOs for antimony, arsenic, beryllium, cadmium, copper, chromium, nickel, thallium, and zinc throughout the Site.

Several semi-volatile organic compounds (“SVOCs”), primarily polycyclic aromatic hydrocarbons (“PAHs”), are also present above the TAGM 4046 RSCOs on the Site. Where contaminants other than PCBs or lead were found above the TAGM 4046 guidelines, NYSDEC did not request additional remediation during the IRMs and allowed the areas excavated as part of the IRMs to be backfilled with clean fill. Several metals, including arsenic, cadmium, chromium, iron, manganese, magnesium, and sodium, are present in the Site’s groundwater at concentrations that exceed NYSDEC Class GA groundwater standards. However, the groundwater regime at the Site is tidally influenced and some of the elevated concentrations of metals appear to be attributable to saltwater intrusion from the Echo Bay. All monitoring wells on the Site were either destroyed during the implementation of the NYSDEC-approved IRMs or abandoned with the NYSDEC’s consent.

After the electric distribution substation on the Site was retired in 1981, Con Edison subsequently decommissioned that facility and razed various aboveground structures on the Site. A number of subsurface structures remain on the Site as summarized below:

- Substation building basement and basement storage room. In 1995 these rooms were backfilled with construction debris and rubble from the floors above them.
- Substation building sub-slab structures. These include a tunnel in the former North Hall of the building and other structures in the building’s former North and South Halls. Cindery fill material present in the North Hall tunnel was removed from the tunnel and the tunnel was backfilled in 2000.
- Tunnel between substation and office building. The tunnel was cleaned and backfilled in 1998.
- Office building foundation wall. The office building’s foundation slab was removed in 1995, but the foundation walls were left in place. Reports for prior work conducted at the Site by Con Edison indicate that there was an extension on the western end of the office building. Consequently, the foundation walls may extend out further than shown on Con Edison’s available drawings for the office building.

- EASP-06. This sump was sampled and backfilled in 1998.
- CB-04 and CB-06. Catch basin CB-04 is located in the center of the former South Hall. Catch basin CB-06 is located along the north side of the former North Hall slab in the northeast corner area. A concrete meter vault is located along the outside of the foundation wall in the northwest corner area of the North Hall. These structures were not removed during the building slab removal conducted in 1999.
- Concrete drainpipe from the former CB-13 location and the tile drainpipe along Echo Bay.
- Four concrete pedestals in the area immediately adjacent to the backyard of the neighboring V. Lockwood residential property. An old insurance map from 1931 that shows the site when it was a coal-fired generating plant indicates that a 50,000 gal water tank was at this location. This map also shows a number of other areas where there could still be some structures below grade that were not encountered during the environmental investigations and remediation activities conducted at the site. There is a possibility that some of these structures and possibly other structures still remain below grade on site.
- The duct banks between the manholes on Echo Avenue and the concrete retaining wall on the western end of the site were not removed. The duct banks were cleaned and plugged on both ends and manhole MH-4 was completely filled with concrete (see Figure 1-3).

The remainder of this Report is organized as follows: Section 2.0 provides additional background and Site history; Section 3.0 identifies the remedial objectives for the Site and their evolution over time; Section 4.0 summarizes the remedial activities conducted for the Site; Section 5.0 documents the known distribution of residual contaminants on the Site; and Section 6.0 provides the summary and conclusions of the Report. The following appendices are included with the Report: Appendix A – Reference Documentation; Appendix B – Summary of Quality Assurance/Quality Control Procedures; Appendix C – Sampling Logs; Appendix C – Analytical Data Summary Sheets; and Appendix E – Data Validation.

2.0 BACKGROUND

Con Edison voluntarily collected samples and cleaned up portions of the Site from 1984 to 1987. All samples were analyzed for PCBs and the results reported to the NYSDEC. In January 1988, the NYSDEC listed the Site on the Registry as a Class 2A site (Site #3-60-016). This classification is normally assigned to sites that have known contamination, but that have inadequate and/or insufficient data regarding associated human health and/or environmental impacts for inclusion in any other Registry classification. NYSDEC requested that Con Edison collect additional samples on the Site, and between 1988 and 1989 a scope of work for the additional investigation was prepared by Con Edison and submitted to the NYSDEC.

In 1990, Con Edison retained HDR|LMS to perform a Phase II investigation of the Site. HDR|LMS modified Con Edison's initial draft work plan to ensure that it conformed to NYSDEC guidelines

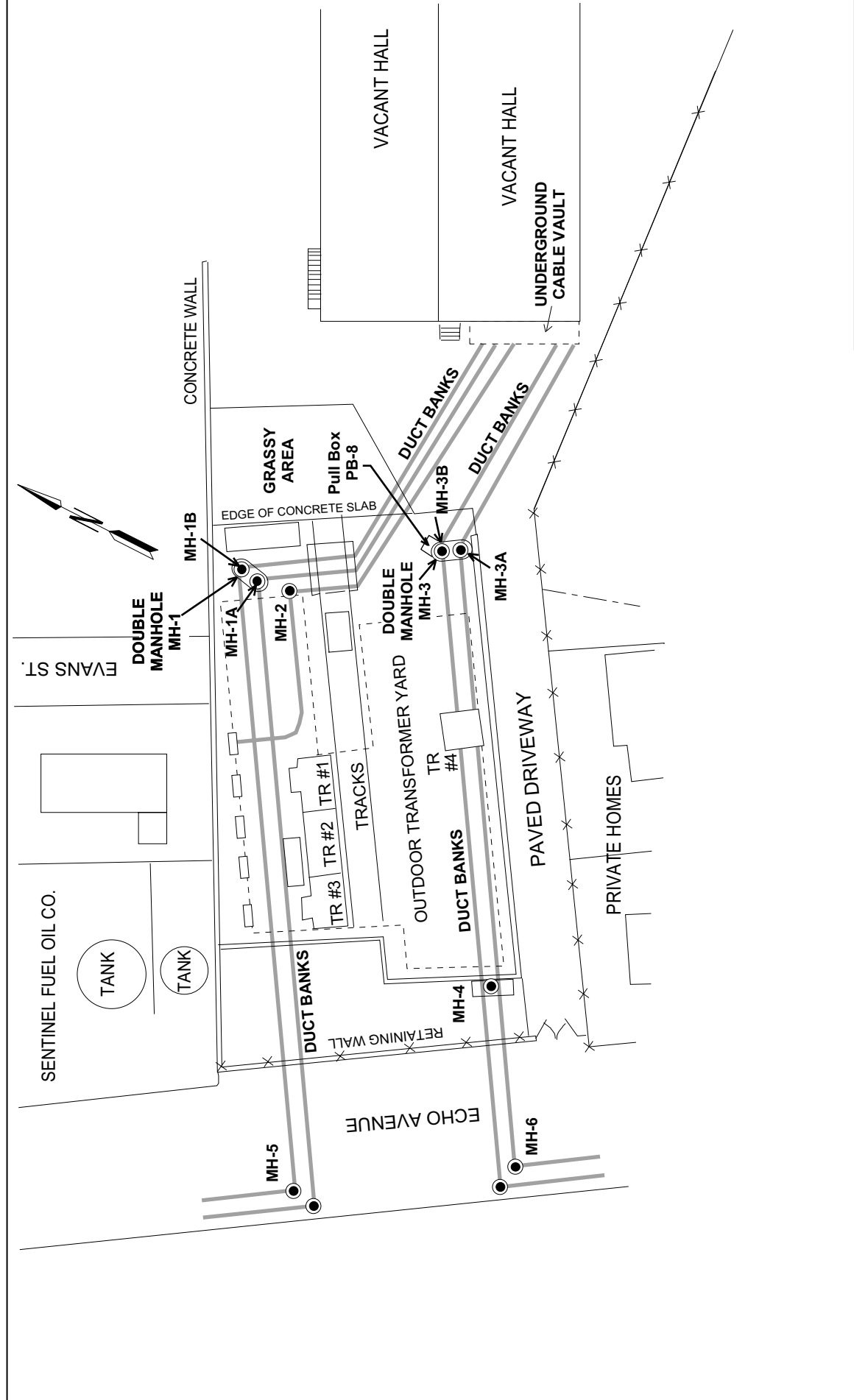


Figure 1-3*
**Location of Electrical Manholes
 and Deep Pull Box
 in Transformer Yard**
 ECHO AVENUE SITE
 CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
 LAWLER, MATUSKY & SKELLY ENGINEERS LLP
 Pearl River, New York



*Figure 6-22 from June 2001 Remediation Report

for Phase II investigations. The revised draft work plan was submitted to the NYSDEC in 1992, and included the collection of wipe samples from the Site's substation slab and walls, concrete core samples from the Site's transformer yard moats, and sediment and soil samples from throughout the Site. All such samples were to be analyzed for PCBs. In addition, selected soil samples, groundwater samples from the on-Site monitoring wells, and surface water samples from Echo Bay were to be analyzed for target compound list ("TCL") organics and target analyte list ("TAL") inorganics.

On June 15, 1992, Con Edison and the NYSDEC entered into Administrative Order on Consent Index # W3-05131-91-02 ("Consent Order") which required Con Edison to implement a NYSDEC-approved Phase II investigation for the Site (Ref. 1, Appendix A of this Report). The Consent Order approved the HDR/LMS work plan as the work plan for the Phase II investigation (Ref. 2, Appendix A of this Report). The Consent Order also allowed Con Edison to implement NYSDEC-approved IRMs for the Site under NYSDEC oversight.

The Phase II investigation for the Site was conducted during 1992, and a report entitled *Phase II Investigation at Echo Avenue Site* ("Phase II Report") was prepared in February 1993 (Ref. 3, Appendix A of this document). The report included the results of the sampling and remediation that Con Edison had conducted at the Site between 1984 and 1987, and the sampling results of the 1992 Phase II investigation.

The following summarizes the relevant findings and conclusions of the Site's Phase II Investigation:

- On-Site soils were found to contain low levels of PAHs, naphthalene and like substances, chlorinated pesticides, lead, mercury, antimony, arsenic, copper, cadmium, and zinc. HDR/LMS concluded that the PAH contamination was most likely associated with coal tars, asphalt, and fuel products, the naphthalene and lead contamination was probably associated with diesel fuel or other fuels, and the pesticides found were most likely a result of their use for termite and other insect control. The metals appeared to be surficial contamination and possibly attributable to fill materials used at the Site or other Site activities.
- PCBs were found in soil at low levels throughout the Site. With one exception, PCB concentrations in soil generally ranged from less than 1 mg/kg to less than 10 mg/kg. PCBs at a concentration of greater than 10 mg/kg were found in soil samples collected from a compost pile. With this one exception, all soil samples were found to contain PCB concentrations less than the United States Environmental Protection Agency's ("EPA") PCB Spill Clean-up Level of 10 mg/kg for restricted access facilities.
- PCBs were not detected in groundwater. However, arsenic, cadmium, chromium, iron, manganese, magnesium, and sodium were present in groundwater samples from the Site at concentrations that exceeded NYSDEC Class GA groundwater standards. Beryllium

was present at concentrations that exceeded its NYSDEC guidance value. The arsenic, beryllium, cadmium, chromium, iron, and manganese exceedances were believed to be attributable to particulate matter suspended in the groundwater samples. The elevated magnesium and sodium levels were believed to be attributable to salt water intrusion from the adjacent Echo Bay.

- No PCBs were found in the Echo Bay surface water samples. Metals were detected above NYSDEC Class SB surface water standards, but at fairly low levels.
- Sediment in the drainage pipes on the Site and in Echo Bay contained levels of PCBs of less than 1 mg/kg.
- Sediment in manhole MH-3 (see Figure 1-3) on the Site contained PCBs at concentrations over 10 mg/kg of PCBs in the north side of the manhole.
- Stained concrete areas in the Site's outdoor transformer yard had low concentrations of PCBs, with most of the results at less than 1 mg/kg. Two samples were above 1 mg/kg but were less than 10 mg/kg.
- Except for scattered small areas on the floor in the two vacant halls of the former substation building, for which wipe sample results confirmed PCB concentrations that exceeded the EPA Spill Clean-up Guidance Level of 10 $\mu\text{g}/100\text{ cm}^2$, on-Site structures were clean as evidenced by wipe samples.

3.0 REMEDIAL OBJECTIVES

The NYSDEC-approved investigation and IRMs for the Site were conducted in phases at various times between 1992 and 2004. Over the course of this period, the remedial objectives and cleanup guidelines for the Site changed. This section of the report covers the evolution of these objectives and how they affected the various stages of the investigations and remedial work. Section 4.0 presents a chronological history of the actual remediation work conducted on the Site.

The Phase II investigation report covered the initial sampling and investigation work conducted by HDR|LMS in 1992. The Phase II Report referenced the EPA PCB Spill Cleanup Policy of 10 mg/kg for soils and 10 $\mu\text{g}/100\text{ cm}^2$ for wipe samples of solid surfaces as the clean up levels for PCBs. At the time, there were no definitive cleanup objectives for sediments, or concrete cores. The cleanup levels for groundwater samples were the NYSDEC Class GA groundwater standards. The NYSDEC surface water Class SB standards (saline surface waters) were used as the clean up objective for surface water samples from Echo Bay.

On October 19, 1993, the NYSDEC commented on the Phase II investigation, indicating that the appropriate PCB cleanup levels for Site soils were $\leq 1\text{ mg/kg}$ for soils $\leq 2\text{ ft}$ deep and $\leq 10\text{ mg/kg}$ for soils over 2 ft deep. For solid surfaces, the NYSDEC indicated that the appropriate cleanup criterion was $\leq 1\text{ }\mu\text{g}/100\text{ cm}^2$, as evidenced by wipe sampling. These cleanup levels were

developed by the NYSDOH for PCB spills near residential areas (Ref. 4, Appendix A of this Report). The PCB cleanup levels for soils and cleanup levels for the other TCL and TAL compounds in soils were later published as RSCOs in the NYSDEC's TAGM 4046 guidance document which was issued on January 24, 1994 (Ref. 5, Appendix A).

In its October 19, 1993 comment letter, NYSDEC also requested that Con Edison collect and analyze samples for polychlorinated dibenzo-p-dioxins ("PCDDs") and polychlorinated dibenzofurans ("PCDFs"). These samples were to be collected on the Site in the vicinity of the area where a fire occurred in the transformer yard in 1981. The specified detection limits for these constituents were to be below the NYSDEC cleanup criteria of 1.0 µg/kg for 2,3,7,8-TCDD equivalents (Ref. 4, Appendix A of this Report). A meeting was held on February 15, 1994, among Con Edison, NYSDOH, and NYSDEC at which the need for the sampling for these compounds was eliminated based on information that Con Edison provided on the PCB concentration of the transformer that burnt (Ref. 6, Appendix A of this Report). Con Edison provided the requisite documentation to the NYSDEC in a letter dated March 17, 2007. In the letter, Con Edison confirmed that the concentration of PCBs in the transformer that had burned (12000 KVA transformer Serial No. 3195692 located in Bank No. 2) was 69 mg/kg. This level of PCBs was believed to be too low to cause concern for the formation of PCDDs and PCDFs as combustion by-products (Ref. 7, Appendix A of this Report).

Subsequently, NYSDEC requested Con Edison to conduct additional sampling to delineate further the extent of the on-Site PCB contamination. HDR/LMS prepared three additional work plans to conduct the requested additional sampling. These plans were prepared and approved by the NYSDEC in 1995, the field work was conducted in 1995, and the results were reported to the NYSDEC in April 1996 (Refs. 8, 9, 10, and 11, Appendix A of this Report).

The additional sampling included the collection of samples from the soil and sediment in the mudflat area of the adjacent Echo Bay, delineation soil sampling in four on-Site areas, collection of three additional sediment samples from Echo Bay, collection of water samples from on-Site drain pipes, collection of sediment and water samples from an on-Site sump pit, collection of concrete chip samples from the basement of the Site's former substation building, resampling in areas where sediment core samples were collected during 1992, sampling of the sediment in Echo Bay just below the discharge structure of a Site drain pipe that emptied into Echo Bay, and the collection of sediment from several locations on Site. Consistent with NYSDEC's request and the NYSDEC-approved work plans, these samples were analyzed for PCBs, but not other TAL and TCL constituents.

In addition to the investigation field work undertaken at the Site, in July and August 1995 Con Edison demolished the Site's substation building down to the building's floor slab, backfilled the

basement in the western portion of the substation building with the building demolition rubble (after collection and analysis of the concrete chip samples), demolished the office building on the Site, and removed the above ground structures of the Site's transformer yard.

In 1996, NYSDEC advised Con Edison that the PCB clean-up level to be achieved in the Echo Bay mudflat area was ≤ 5 mg/kg (Ref. 12, Appendix A of this Report). Because the results of the additional sampling conducted during 1996 indicated that the sediment in one area of Echo Bay did not meet the ≤ 5 mg/kg PCB cleanup criterion level and selected areas on the Site did not meet the PCB soil and solid surface cleanup levels specified by the NYSDEC and NYSDOH in October 1993, Con Edison elected to remediate these areas as an IRM. HDR|LMS prepared a detailed remediation work plan (*Additional Sampling and Remediation Work Plan*) in July 1996 [the "July 1996 Work Plan" (Ref. 13, Appendix A of this Report)] that was approved by the NYSDEC in August 1996. The July 1996 Work Plan included remediation of the PCB contamination in on-Site soils, off-Site residential soils, sediments, and on concrete surfaces, as well as mudflat sediment. The approved work plan specified that samples would be collected for analyses for TCL organics, TAL inorganics, resource conservation and recovery act ("RCRA") parameters, and total petroleum hydrocarbons ("TPH") in the event that a potential underground tank located near the concrete wall separating the Site from Echo Bay was confirmed. HDR|LMS did not find an underground tank at the reported location. No other contaminants found on the Site during the previous investigations required remediation. Remedial objectives for PCBs were set by the NYSDEC as follows:

- For soils and on-site sediment: ≤ 1 mg/kg PCBs for soils ≤ 2 ft deep and ≤ 10 mg/kg for soils greater than 2 ft deep.
- For mudflat sediment in Echo Bay: all sediment ≤ 5 mg/kg.

The remediation work contained in the July 1996 Work Plan was initiated in November 1997, and essentially completed in June 1998. In May 1998, NYSDEC requested that Con Edison collect soil samples beneath the substation slab and transformer yard slab. In response to this request, Con Edison decided to remove the slabs and the associated structures in their entirety and then sample and, if necessary, remediate the underlying soils (the original approved remediation plan called for the slabs to be cleaned and then left in place). In May 1998, Con Edison submitted to the NYSDEC a *Sampling/Remedial Work Plan for Transformer Yard Slab and Substation Building Slab* [the "May 1998 Work Plan" (Ref. 14, Appendix A of this Report)]. The May 1998 Work Plan included remediation for PCBs only. Subsequently, the NYSDEC requested that if visually contaminated soils were observed beneath the transformer yard slab, samples would be collected and analyzed for TCL organics and TAL inorganics and compared to the RSCOs in TAGM 4046. The NYSDEC approved the revised May 1998 Work Plan in May 1999.

The work specified in the revised May 1998 Work plan was initiated in August 1999. The substation slab removal and sampling of soils was completed in January 2000 and removal of the transformer slab and excavation of PCB-contaminated soils above cleanup objectives were completed in November 2000.

One of the samples collected from the transformer yard moat drain during the original remediation (January 1998) work was analyzed for the full TCL and TAL compounds at the NYSDEC's request and showed elevated levels of cadmium, chromium, lead, and zinc when compared to either typical site background concentrations or the RSCOs in TAGM 4046. Site background concentrations for the eastern USA or New York State are provided in TAGM 4046 for various metals. Therefore, the NYSDEC requested that the area be excavated until the metals levels were reduced to acceptable levels. Con Edison submitted a letter to NYSDEC in August 1999 that described the proposed sampling plan for metals in this area (Ref. 15, Appendix A of this Report). Sampling and excavation were conducted in October 1999. An X-ray Fluorescence ("XRF") analyzer was used for the metals analysis on Site with selected samples sent to an off-site laboratory for confirmation. The results indicated elevated levels of the metals of concern. Con Edison conducted an additional investigation that led to the conclusion that the metals found were associated with the cindery fill material present immediately below the transformer yard slab.

The results of the metals investigation were transmitted to NYSDEC. The NYSDOH responded with a letter stating that the high levels of lead were of concern and that, if Con Edison did not remediate the hot spots to levels of less than 500 mg/kg., Con Edison would either have to pave over the area of the transformer yard or cover it with two feet of clean fill and execute and record a deed restriction for the Site property (Ref. 16, Appendix A of this Report). NYSDEC agreed with NYSDOH's comments. Con Edison elected to remove the cindery fill material, so that all remaining lead concentrations would be less than 500 mg/kg. Therefore, the Site cleanup objective for lead was established as 500 mg/kg.

The cinder layer removal was initiated in February 2000, and halted in March 2000, when oily water and soils were encountered. A series of test pits were completed in the area in order to investigate the potential source(s) of the oil. Based on the results of the test pit investigation, Con Edison elected to halt all remediation work until a new work plan could be developed.

An additional work plan entitled *Additional Remediation Work Plan for Transformer Yard of Con Edison's Echo Avenue Site, New Rochelle, New York* [the "June 2001 Work Plan" (Ref. 17, Appendix A of this Report)] was prepared in June 2001. The work included the removal of the remaining cinder layer and the removal of the duct banks in the transformer yard. The

cleanup objective for the cinder layer removal was 500 mg/kg for lead and ≤ 1 mg/kg for soils ≤ 2 ft deep and ≤ 10 mg/kg for soil > 2 ft deep for PCBs.

The results of the remediation conducted from 1996 to 2000 were summarized in a report entitled *Echo Avenue Site Remediation Report* dated June 2001 [“the June 2001 Remediation Report” (Ref. 18, Appendix A of this document)].

In October 2001, Con Edison submitted a separate proposed IRM work plan entitled *Remediation Proposal for Fuel-Oil Contaminated Soil in Con Edison’s Echo Avenue Site Transformer Yard* (the “October 2001 Work Plan”) for the fuel oil-contaminated area that was found during the test pit investigation in the northwestern corner of the transformer yard (Ref. 19, Appendix A of this Report). The work included in that plan called for the excavation of the visually contaminated soil that had been detected in that portion of the Site and the collection and analysis of five post-excavation confirmatory samples from the excavation for TCL volatile organic compounds (“VOCs”) and TCL semi-volatile organic compounds (“SVOCs”). The work was completed in May 2002 after receipt of approval of the work plan by NYSDEC.

The field work specified in the June 2001 Work Plan was initiated in April 2002 and completed in August 2002. In August 2002, Con Edison elected to conduct additional IRM work on the Site. The scope of this additional work was summarized in a work plan entitled *Additional On-Site Work* (the “October 2002 Work Plan”) that was submitted to NYSDEC in October 2002 (Ref. 20, Appendix A of this Report). The proposed additional work included:

- the removal of the concrete pedestals in the Site’s transformer yard;
- removal of all additional structures, including the electrical manholes and a pullbox in the Site’s transformer yard;
- excavation of all soil down to a depth of six feet in the Site’s transformer yard;
- removal of all paper-insulated lead cable (“PILC”) between the Site’s transformer yard and cable vault;
- removal of additional duct runs between the electrical manholes and cable vault and between the cable vault and the tunnel on the Site;
- excavation and removal of the cable vault;
- collection of groundwater samples from the remaining on-site monitoring wells and analysis for TCL organics and TAL inorganics; and
- abandonment of the wells after NYSDEC reviewed the groundwater data.

Con Edison elected to start the work in August 2002, because the remediation contractor was already on site. NYSDEC subsequently approved the work plan in November 2002. The work was completed in May 2003.

With the exception of the groundwater samples taken from monitoring wells, PCBs were the only parameter analyzed for as part of the post-remedial confirmation sampling conducted under the October 2002 work plan.

There were only two monitoring wells remaining that could still be sampled on the Site after the IRM work was completed. These wells were sampled on August 7, 2002 and analyzed for TCL organics and TAL inorganics plus cyanide. The NYSDEC Class GA standards were used as the remedial objectives for groundwater.

The IRM work conducted on the Site from 2002 to 2003 was summarized in a report dated July 2003 entitled *Echo Avenue Site Remediation Report Addendum* [the “July 2003 Remediation Report Addendum” (Ref. 21, Appendix A of this Report)].

As stated previously, all PCBs in the mudflat area of Echo Bay with a concentration greater than 5 mg/kg were removed in 1998 and the results reported in the June 2001 Remediation Report. Subsequently, at a meeting held in August 2001, NYSDEC requested that Con Edison remove the PCB-contaminated sediments in the mudflat area of Echo Bay that contained more than 1 mg/kg PCBs. Con Edison retained TRC in 2003 to conduct the mudflat remediation project.

TRC prepared a *Remedial Action Work Plan for the Echo Avenue Project New Rochelle, New York* (“RAWP”) in May 2003 (Ref. 22, Appendix A of this Report) that described the proposed remediation plan and included a pre-design sampling program for the mudflat area. The RAWP identified four areas of concern (“AOC”) that required excavation to meet the 1.0 mg/kg PCB cleanup objective. The RAWP was approved by the NYSDEC in June 2003.

The mudflat remediation work was conducted in November and December 2003 and March and April 2004 and reported on in a document prepared by TRC entitled *Remedial Action Report for the Echo Avenue Project, New Rochelle, New York* (“RAR”) dated February 2005 (Ref. 23, Appendix A of this Report)

In summary the remedial objectives for the Site developed over time as the investigation/IRM project proceeded. The table on the following page summarizes the objectives for the different time periods:

MEDIA	DATES	PARAMETER	VALUE
On-Site Soil & Sediment	February 1992 to February 1993	PCBs	≤10 mg/kg
		TCL organics	None
		TAL inorganics	Background concentrations from J. Dragun, The Soil Chemistry of Hazardous Materials
	October 1993 to present	PCBs	≤1 mg/kg for soils ≤2 ft deep; ≤10 mg/kg for soils >2 ft deep
		2,3,7,8-Dioxin	<1.0 µg/kg
	January 1994 to present	TCL organics	NYSDEC TAGM 4046
		TAL inorganics	NYSDEC TAGM 4046
Concrete and Other Solid Surfaces	February 1992 to February 1993	PCBs	≤10 µg/100 cm ² in wipe samples
	October 1993 to present	PCBs	≤1 µg/100 cm ² in wipe samples
Mudflat Sediments	July 1996 to 2003	PCBs	≤5 mg/kg
	2003 to present	PCBs	≤1 mg/kg
Groundwater	February 1992 to present	PCBs	Class GA Groundwater Standards
		TCL organics	Class GA Groundwater Standards
		TAL inorganics	Class GA Groundwater Standards
Surface Water	February 1992 to present	PCBs	Class SB Surface Water Standards
		TCL organics	Class SB Surface Water Standards
		TAL inorganics	Class SB Surface Water Standards

4.0 SUMMARY OF REMEDIAL ACTIVITIES

This section summarizes the chronological history of the IRM activities conducted for the Echo Avenue Site.

4.1 1984 to 1987

From 1984 to 1987, Con Edison conducted voluntary cleanup activities at the Site without NYSDEC oversight. These activities consisted of the: removal of shallow soil from several on-Site locations; cleaning cable ducts ; pressure washing of the Site substation building's basement

floor, transformer yard moat drains, concrete slab of transformer yard, manholes and cable vault; and removal of oil or oily material from structures around the Site. Details of the entire sampling and cleanup efforts voluntarily conducted by Con Edison during this time period are provided in the Phase II Report (Ref. 3, Appendix A of this Report).

4.2 1996 to 1998

A pre-remediation investigation was conducted in October and November 1996 to delineate the extent of contamination at selected areas on the Site. Con Edison retained OHM Remediation Services Corporation (“OHM”) to complete the IRM activities specified in the July 1996 Work Plan. The actual remediation work was initiated in November 1997. These activities included the excavation and disposal of soil from four areas on the Site and four adjacent residential properties, the excavation and disposal of sediment from the mudflat area, cleaning and plugging of the duct banks, sampling and either backfilling or removing the manholes in the transformer yard, removing the cable vault, backfilling of the underground tunnel, and removing or backfilling of sumps on the Site. Prior to the implementation of IRM activities on adjacent residential properties, additional samples were collected to further delineate the extent of contamination. HDR|LMS provided environmental oversight, collected all samples, reviewed the data and recommended if additional clean-up was required, and documented the remediation undertaken in detail. All samples were analyzed for PCBs with the following cleanup objectives:

- ≤ 1 mg/kg for soils ≤ 2 ft deep; ≤ 10 mg/kg for soils > 2 ft deep
- ≤ 5 mg/kg for mudflat sediments

To accelerate the determination of whether or not cleanup objectives were met, a mobile laboratory was used to quickly analyze the samples for PCBs. HDR|LMS retained Severn Trent Laboratories (“STL”) to conduct these on-site analyses. HDR|LMS also retained H2M Labs to analyze split samples to confirm both the mobile laboratory data and confirm that clean-up levels had been achieved. The IRM activities specified in the July 1996 Work Plan were completed in 1998.

At five locations (see Figure 6-3 in Section 6.0) during the course of the on-Site excavation work, oily soil or soil with a fuel-oil like odor were noted. For these locations NYSDEC requested that a sample be collected and analyzed for TCL organics and TAL inorganics. The RSCOs in TAGM 4046 were used to compare the results from these samples. With the exception of metals, for all other compounds, only compounds that were detected in the samples are provided on the tables.

Descriptions of the five locations, sampling results, and remediation performed, if any, is summarized below:

- **WTD-01.** This sample was collected as part of the soil removal conducted in the backyard of 34 Decatur Road along the fence line adjacent to the Site. The sample was collected near a valve from a pipe that formerly connected to a 50,000 gal service water tank that no longer existed on the Con Edison property. Attached Table 4-1, originally Table 6-3 from the June 2001 Remediation Report, shows two SVOCs, benzo(a)anthracene and benzo(a)pyrene ("BaP"), and three metals, mercury, nickel, and zinc, above the RSCOs in TAGM 4046. A fingerprint analysis determined that the oil was similar to dielectric fluid. Since additional pits dug around the area showed no evidence of oily soil, no additional soil was excavated. After the results were reviewed by NYSDEC on-site personnel, the contractor was instructed in the field by NYSDEC to backfill the area with certified clean backfill and topsoil.
- **E-A-25.** This sample was collected as part of the EADEC-E on-Site soil remediation. The sample was collected along the concrete wall. The results, provided in attached Table 4-2, originally Table 6-4 from the June 2001 Remediation Report, showed two VOCs in the sample, acetone and methylene chloride, one SVOC, BaP, and two metals, mercury and zinc, above the RSCOs. Acetone and methylene chloride are not considered representative of Site conditions as they were also found in the field blank indicative of a laboratory contamination problem. A fingerprint analysis determined that the oil was similar to dielectric fluid. After the results were reviewed by NYSDEC on-site personnel, the contractor was instructed in the field by NYSDEC to backfill the area with certified clean backfill and topsoil.
- **TYSS-05.** This sample was collected near a concrete pedestal from an area in the transformer yard where the concrete slab did not cover the soil. The sample results as contained in attached Table 4-3, formerly Table 6-5 of the June 2001 Remediation Report, indicated one VOC, methylene chloride and one metal, zinc, above the RSCOs in TAGM 4046. Methylene chloride is not considered a Site contaminant; it was detected in the field blank, indicative of a laboratory problem. A fingerprint analysis determined that the oil was similar to dielectric fluid. All structures and soil down to six ft in the transformer yard were subsequently removed as part of the 2002 remediation.
- **TYMD-01.** This sample was collected in the area of the transformer yard moat drain. The sample results on Table 4-4, originally Table 6-8 of the June 2001 Remediation Report, showed one VOC, methylene chloride, and five metals, arsenic, cadmium, copper, lead, and zinc, above the RSCOs in TAGM 4046. Methylene chloride is not considered a site contaminant as it was also detected in the field blank, indicative of a laboratory problem. The area was subsequently remediated as part of the transformer yard remediation conducted from 1999 to 2002.
- **CVDP-02, CVDP-04, CVDP-05, and CVDP-06.** These samples were collected as part of the cable vault drainpipe excavation. CVDP-02 was the original sample collected from the soil beneath the drainpipe after its removal. It had nine SVOCs, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, BaP, and indeno(1,2,3-c,d)pyrene, and one metal, zinc, above the RSCOs in TAGM 4046. A fingerprint analysis determined that the oil was similar to dielectric fluid. The SVOC contamination at this location and other locations on the site may have been associated with the fill material on the site; however, the levels of SVOCs

Originally Table 6-3 (June 2001 Remediation Report)

ADJACENT RESIDENTIAL PROPERTY

PARAMETER	WTD-01 ^a	WTD-01 ^c	EAFB-04 (µg/l)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)					
Methylene chloride	ND	♦	4 b j	0.1	NA
Acetone	ND	♦	5 b j	0.2	NA
2-Butanone	ND	♦	1 j	0.3	NA
SEMIVOLATILE ORGANICS (mg/kg)					
Fluoranthene	1.32	♦	ND	50.0 ***	NA
Pyrene	0.50	♦	ND	50.0 ***	NA
Benzo(a)anthracene	0.29	♦	ND	0.224 or MDL	NA
Chrysene	0.27	♦	ND	0.4	NA
bis(2-Ethylhexyl)phthalate	0.15	♦	1 b j	50.0 ***	NA
Benzo(b)fluoranthene	0.36	♦	ND	1.1	NA
Benzo(a)pyrene	0.31	♦	ND	0.061 or MDL	NA
Indeno(1,2,3-c,d)pyrene	0.20	♦	ND	3.2	NA
Benzo(g,h,i)perylene	0.21	♦	ND	50.0 ***	NA
PESTICIDES/PCBs (mg/kg)					
Aroclor 1254	ND	ND	ND	1.0/10*	NA
Aroclor 1260	ND	ND	ND	1.0/10*	NA
METALS (mg/kg)					
Aluminum	9,510	♦	53 B	SB	33,000
Antimony	ND	♦	ND	SB	0.6 - 10 (n)
Arsenic	7.4	♦	ND	7.5 or SB	3.0 - 12.0 æ
Barium	53	♦	2.6 B	300 or SB	15 - 600
Beryllium	0.48	♦	0.10 B	0.16 or SB	0 - 1.75
Cadmium	0.85	♦	ND	1 or SB	0.1 - 1.0
Calcium	1,720	♦	109 B	SB	130 - 35,000 æ
Chromium	20	♦	ND	10 or SB	1.5 - 40.0 æ
Cobalt	6.7	♦	ND	30 or SB	2.5 - 60.0 æ
Copper	30	♦	ND	25 or SB	1.0 - 50.0
Iron	9,190	♦	85 B	2,000 or SB	2,000 - 550,000
Lead	60	♦	3.5	SB**	4.0 - 61 or 200 - 500**
Magnesium	2,480	♦	16 B	SB	100 - 5,000
Manganese	102	♦	1.5 B	SB	50 - 5,000
Mercury	0.34	♦	ND	0.1	0.001 - 0.2
Nickel	31	♦	ND	13 or SB	0.5 - 25
Potassium	495	♦	15 B	SB	8,500 - 43,000 æ
Selenium	3.5	♦	ND	2 or SB	0.1 - 3.9
Silver	ND	♦	ND	SB	0.1 - 5.0 (n)
Sodium	ND	♦	ND	SB	6,000 - 8,000
Thallium	ND	♦	ND	SB	0.1 - 0.8 (q)
Vanadium	23	♦	ND	150 or SB	1.0 - 300
Zinc	88	♦	7.6 B	20 or SB	9.0 - 50
Cyanide	ND	♦	ND	****	N/A

- * - Not analyzed.
- *** - As per TAGM #4046, Total VOCs < 10 ppm,
total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.
- (b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.
 - a - Sample analyzed by Environmental Testing Laboratories, Inc.
 - c - Sample analyzed by Severn Trent Laboratories, Inc.
 - b - Found in associated blanks.
 - * - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.
- ** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.
- **** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.
- ae - New York State background concentration.
- (n) - Dragun, J., The Soil Chemistry of Hazardous Materials.
- (q) - Bowan, H.J., Environmental Chemistry of the Elements.
- B - Value is less than the contract-required detection limit but greater than the instrument detection limit.
- ND - Not detected at analytical detection limit.
- SB - Site background.
- FB - Field blank

Originally Table 6-4 (June 2001 Remediation Report)

E-A-25 SOIL DATA SUMMARY**EADEC-E AREA**
(January 1998)

PARAMETER	E-A-25	RE E-A-25	DL E-A-25	E-A-25 ^c	EAFB-04 (µg/l)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)							
Methylene chloride	1.1 b e	*	0.049 b j	*	4 b j	0.1	NA
Acetone	0.22 b	*	0.39 b	*	5 b j	0.2	NA
2-Butanone	0.062	*	0.17	*	1 j	0.3	NA
4-Methyl-2-pentanone	0.25 b	*	ND	*	ND	1.0	NA
SEMI-VOLATILE ORGANICS (mg/kg)							
Naphthalene	0.95	0.71	*	*	ND	13	NA
2-Methylnaphthalene	2.9	2.6	*	*	ND	36.4	NA
Acenaphthene	0.50	0.51	*	*	ND	41	NA
Dibenzofuran	0.45 j	0.41 j	*	*	ND	6.2	NA
Fluorene	1.0	0.89	*	*	ND	50.0***	NA
Phenanthrene	2.0	1.7	*	*	ND	50.0***	NA
Anthracene	0.36 j	0.33 j	*	*	ND	50.0***	NA
Fluoranthene	0.32 j	0.26 j	*	*	ND	50.0 ***	NA
Pyrene	0.36 j	0.35 j	*	*	ND	50.0 ***	NA
Benzo(a)anthracene	0.12 j	0.10 j	*	*	ND	0.224 or MDL	NA
Chrysene	0.15 j	0.13 j	*	*	ND	0.4	NA
Benzo(b)fluoranthene	0.086 j	0.070 j	*	*	ND	1.1	NA
Benzo(k)fluoranthene	0.071 j	0.060 j	*	*	ND	1.1	NA
Benzo(a)pyrene	0.11 j	0.096 j	*	*	ND	0.061 or MDL	NA
PESTICIDES/PCBs (mg/kg)							
alpha-BHC	0.0025 b	*	*	*	ND	0.11	NA
Endrin	0.0047 j p	*	*	*	ND	0.1	NA
Aroclor 1254	ND	*	*	ND	ND	1.0/10*	NA
Aroclor 1260	ND	*	*	ND	ND	1.0/10*	NA
METALS (mg/kg)							
Aluminum	6,900 R	*	*	*	53 B	SB	33,000
Antimony	0.77 B N	*	*	*	ND	SB	0.6 - 10 (n)
Arsenic	12 E	*	*	*	ND	7.5 or SB	3.0 - 12.0 æ
Barium	59	*	*	*	2.6 B	300 or SB	15 - 600
Beryllium	0.44 B	*	*	*	0.10 B	0.16 or SB	0 - 1.75
Cadmium	ND	*	*	*	ND	1 or SB	0.1 - 1.0
Calcium	874	*	*	*	109 B	SB	130 - 35,000 æ
Chromium	17	*	*	*	ND	10 or SB	1.5 - 40.0 æ
Cobalt	7.1 B	*	*	*	ND	30 or SB	2.5 - 60.0 æ
Copper	29	*	*	*	ND	25 or SB	1.0 - 50.0
Iron	18,100 R	*	*	*	85 B	2,000 or SB	2,000 - 550,000
Lead	61	*	*	*	3.5	SB**	4.0 - 61 or 200 - 500**
Magnesium	1,890	*	*	*	16 B	SB	100 - 5,000
Manganese	89 R	*	*	*	1.5 B	SB	50 - 5,000
Mercury	0.13	*	*	*	ND	0.1	0.001 - 0.2
Nickel	14 E	*	*	*	ND	13 or SB	0.5 - 25
Potassium	1,130	*	*	*	15 B	SB	8,500 - 43,000 æ
Selenium	2.4	*	*	*	ND	2 or SB	0.1 - 3.9
Silver	ND	*	*	*	ND	SB	0.1 - 5.0 (n)
Sodium	97 B E	*	*	*	ND	SB	6,000 - 8,000
Thallium	0.72 B	*	*	*	ND	SB	0.1 - 0.6 (q)
Vanadium	25	*	*	*	ND	150 or SB	1.0 - 300
Zinc	131	*	*	*	7.6 B	20 or SB	9.0 - 50
Cyanide	ND	*	*	*	ND	****	N/A

Note : Numbers in bold exceed objectives.

♦ - Not analyzed.

*** - As per TAGM #4046, Total VOCs < 10 ppm, total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/84.

a - Sample analyzed by Environmental Testing Laboratories, Inc.

c - Sample analyzed by Severn Trent Laboratories, Inc. in December 1997.

b - Found in associated blanks.

e - Estimated concentration; exceeds GC/MS calibration range.

j - Estimated concentration; compound present below quantitation limit.

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

MDL - Method detection limit.

p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

*** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to

200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(h) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowen, H. J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits.

R - Duplicate analysis not within control limits.

SB - Site background.

TABLE 4-3 (1 of 1)

Originally Table 6-5 (June 2001 Remediation Report)

TYSS-05 SOIL DATA SUMMARY
TRANSFORMER YARD
(January 1998)

PARAMETER	TYSS-05	DL TYSS-05	EAFB-04 (µg/l)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)					
Methylene chloride	0.20 b	♦	4 b j	0.1	NA
Acetone	0.017 b	♦	5 b j	0.2	NA
2-Butanone	0.005 j	♦	1 j	0.3	NA
SEMIVOLATILE ORGANICS (mg/kg)					
bis(2-Ethylhexyl)phthalate	ND	[DL: 10:1] ND	1 b j	50.0 ***	NA
PESTICIDES/PCBs (mg/kg)					
Endrin aldehyde	0.0025 j p	♦	ND	NS	NA
Aroclor 1254	ND	♦	ND	1.0/10*	NA
Aroclor 1260	0.096	♦	ND	1.0/10*	NA
METALS (mg/kg)					
Aluminum	9,890 R	♦	53 B	SB	33,000
Antimony	0.73 B N	♦	ND	SB	0.6 - 10 (n)
Arsenic	8.6 E	♦	ND	7.5 or SB	3.0 - 12.0 æ
Barium	90	♦	2.6 B	300 or SB	15 - 600
Beryllium	0.43 B	♦	0.10 B	0.16 or SB	0 - 1.75
Cadmium	0.38 B	♦	ND	1 or SB	0.1 - 1.0
Calcium	2,290	♦	109 B	SB	130 - 35,000 æ
Chromium	23	♦	ND	10 or SB	1.5 - 40.0 æ
Cobalt	10	♦	ND	30 or SB	2.5 - 60.0 æ
Copper	38	♦	ND	25 or SB	1.0 - 50.0
Iron	17,600 R	♦	85 B	2,000 or SB	2,000 - 550,000
Lead	45	♦	3.5	SB**	4.0 - 61 or 200 - 500**
Magnesium	4,040	♦	16 B	SB	100 - 5,000
Manganese	188 R	♦	1.5 B	SB	50 - 5,000
Mercury	ND	♦	ND	0.1	0.001 - 0.2
Nickel	20 E	♦	ND	13 or SB	0.5 - 25
Potassium	3,360	♦	15 B	SB	8,500 - 43,000 æ
Selenium	0.34 B	♦	ND	2 or SB	0.1 - 3.9
Silver	ND	♦	ND	SB	0.1 - 5.0 (n)
Sodium	74 B E	♦	ND	SB	6,000 - 8,000
Thallium	0.24 B	♦	ND	SB	0.1 - 0.8 (q)
Vanadium	29	♦	ND	150 or SB	1.0 - 300
Zinc	406	♦	7.6 B	20 or SB	9.0 - 50
Cyanide	ND	♦	ND	****	N/A

Note : Numbers in bold exceed objectives.

♦ - Not analyzed.

*** - As per IAGM #4046, total VOCs < 10 ppm, total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (IAGM), 1/94.

b - Found in associated blanks.

e - Estimated concentration; exceeds GC/MS calibration range.

j - Estimated concentration; compound present below quantitation limit.

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

RE - Reanalysis.

MDL - Method detection limit.

p - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowan, H.J., Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits.

R - Duplicate analysis not within control limits.

SB - Site background.

TABLE 4-4 (1 of 2)

Originally Table 6-8 (June 2001 Remediation Report)

TYMD SOIL DATA SUMMARY
TRANSFORMER YARD MOAT DRAIN
 (January 1998)

PARAMETER	TYMD-01 H2M	TYMD-01 H2M	TYMD-01 ^c STL	TYMD-02 H2M	TYMD-02 ^c STL	EA/FB-04 (µg/l) H2M	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)								
Methylene chloride	0.16 b	♦	♦	♦	♦	4 b j	0.1	NA
Acetone	0.035 b	♦	♦	♦	♦	5 b j	0.2	NA
2-Butanone	0.003 j	♦	♦	♦	♦	1 j	0.3	NA
Toluene	0.005 j	♦	♦	♦	♦	ND	1.5	NA
SEMI-VOLATILE ORGANICS (mg/kg)								
2-Methylnaphthalene	0.062 j	♦	♦	♦	♦	ND	36.4	NA
bis(2-Ethylhexyl)phthalate	ND	♦	♦	♦	♦	1 b j	50.0 ***	NA
PESTICIDES/PCBs (mg/kg)								
alpha-BHC	0.0022 b j p	♦	♦	♦	♦	ND	0.11	NA
Endosulfan I	0.0017 j p	♦	♦	♦	♦	ND	0.9	NA
4,4'-DDE	0.0041 j p	♦	♦	♦	♦	ND	2.1	NA
Endrin aldehyde	0.0025 j p	♦	♦	♦	♦	ND	NS	NA
Aroclor 1254	0.14 p	0.28	0.48	0.34	0.53	ND	1.0/10*	NA
Aroclor 1260	0.21	0.31p	ND	0.16	ND	ND	1.0/10*	NA

Note: Numbers in bold exceed objectives.

♦ Not analyzed.

*** As per TAGM #4046, Total VOCs < 10 ppm.

(b) total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

c - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

b - Sample analyzed by Severn Trent Laboratories, Inc.

ND - Found in associated blanks.

p - Not detected at analytical detection limit.

* - Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

♦ - 1.0 ppm refers to surface concentrations, 10 ppm refers to subsurface concentrations.

FB - Field blank

TABLE 4-4 (2 of 2)

Originally Table 6-8 (June 2001 Remediation Report)

TYMD SOIL DATA SUMMARY
TRANSFORMER YARD MOAT DRAIN
(January 1998)

PARAMETER	TYMD-01 H2M	TYMD-01 H2M	TYMD-01 ^c STL	TYMD-02 H2M	TYMD-02 ^c STL	EAFB-04 (µg/l) H2M	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
METALS (mg/kg)								
Aluminum	5,250 R	♦	♦	♦	♦	53 B	SB	33,000
Antimony	0.43 B N	♦	♦	♦	♦	ND	SB	0.6 - 10 (n)
Arsenic	17 E	♦	♦	♦	♦	ND	7.5 or SB	3.0 - 12.0 ae
Barium	297	♦	♦	♦	♦	2.6 B	300 or SB	15 - 600
Beryllium	0.50 B	♦	♦	♦	♦	0.10 B	0.16 or SB	0 - 1.75
Cadmium	8.8	♦	♦	♦	♦	ND	1 or SB	0.1 - 1.0
Calcium	18,500	♦	♦	♦	♦	109 B	SB	130 - 35,000 ae
Chromium	15	♦	♦	♦	♦	ND	10 or SB	1.5 - 40.0 ae
Cobalt	5.5 B	♦	♦	♦	♦	ND	30 or SB	2.5 - 60.0 ae
Copper	264	♦	♦	♦	♦	ND	25 or SB	1.0 - 50.0
Iron	22,100 R	♦	♦	♦	♦	85 B	2,000 or SB	2,000 - 550,000
Lead	2,390	♦	♦	♦	♦	3.5	SB**	4.0 - 61 or 200 - 500**
Magnesium	1,700	♦	♦	♦	♦	16 B	SB	100 - 5,000
Manganese	144 R	♦	♦	♦	♦	1.5 B	SB	50 - 5,000
Mercury	0.10 B	♦	♦	♦	♦	ND	0.1	0.001 - 0.2
Nickel	17 E	♦	♦	♦	♦	ND	13 or SB	0.5 - 25
Potassium	787	♦	♦	♦	♦	15 B	SB	8,500 - 43,000 ae
Selenium	1.3	♦	♦	♦	♦	ND	2 or SB	0.1 - 3.9
Silver	ND	♦	♦	♦	♦	ND	SB	0.1 - 5.0 (n)
Sodium	134 B E	♦	♦	♦	♦	ND	SB	6,000 - 8,000
Thallium	0.60 B	♦	♦	♦	♦	ND	SB	0.1 - 0.8 (q)
Vanadium	14	♦	♦	♦	♦	ND	150 or SB	1.0 - 300
Zinc	2,590	♦	♦	♦	♦	7.6 B	20 or SB	9.0 - 50

Note: Numbers in bold exceed objectives.

- ♦ - Not analyzed
- ** - As per TAGM #4046, Total VOCs < 10 ppm, total SVOCs < 500 ppm and individual SVOCs < 50 ppm
- (b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM) 1/94.
- a - Sample analyzed by Environmental Testing Laboratories, Inc.
- c - Sample analyzed by Severn Trent Laboratories, Inc.
- b - Found in associated blanks
- e - Estimated concentration, exceeds GC/MS calibration range.
- J - Estimated concentration, compound present below quantitation limit
- DL - Diluted sample analysis
- ND - Not detected at analytical detection limit
- RE - Reanalysis
- MDL - Method detection limit
- p - Pesticide/Arochlor target analyte has >25% difference for the detected concentrations between the two GC columns
- ** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.
- *** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.
- ae - New York State background concentration
- (n) - Dragun, J. The Soil Chemistry of Hazardous Materials
- (q) - Bowman, H.J. Environmental Chemistry of the Elements.
- B - Value is less than the contract-required detection limit but greater than the instrument detection limit
- E - Value estimated due to interference.
- N - Spiked sample recovery is not within control limits.
- R - Duplicate analysis not within control limits.
- SB - Site background
- FB - Field blank

at this location were higher than at other locations on site. The NYSDEC requested that the area around CVDP-02 be widened and deepened to remove the SVOCs down to acceptable levels. Subsequent to soil removal, three additional samples (CVDP-04, CVDP-05, and CVDP-06) were collected after the area was excavated and analyzed for SVOCs only; one or more of these samples showed low levels of benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, and BaP that were slightly above the RSCOs in TAGM 4046. Table 4-5, formerly Table 7-17 from the June 2001 Remediation Report, contains the data from the cable vault drainpipe excavation. NYSDEC reviewed the data, indicated that no further work was required in the area, and granted approval for backfilling the area with clean, certified fill.

In addition, during the excavation to locate the entrance to the intake and discharge tunnels at the substation, a rusty cindery fill material was encountered. Con Edison requested that a sample be taken and analyzed for the full toxicity characteristic leaching procedure (“TCLP”) parameters; NYSDEC agreed with this decision. The results were compared to the hazardous waste threshold for each compound. Only barium, chromium, and lead were detected and at levels significantly below their hazardous waste threshold; all other compounds were not detected. Table 4-6, formerly Table 6-16 from the June 2001 Remediation Report, provides these results.

Because the Site was originally owned and operated by other utility companies, the previous use and history of the Site were not always well documented. In addition, the available maps and plans of the Site were not always accurate or complete. These factors resulted in many changes during the investigation and also during the course of remediation, when previously unknown structures including drainpipes, catch basins, electrical boxes, and sumps were encountered. Some of these structures were contaminated with PCBs. As these structures were encountered they were sampled, analyzed, and, if contaminated, removed and then the underlying soil was sampled and analyzed beneath them. Many of these structures were located beneath the transformer yard slab and the substation building slab. In 1998, NYSDEC requested that additional soil samples be collected beneath the slabs. Con Edison elected to remove the slabs and submitted a Work Plan to NYSDEC in May 1998. OHM demobilized from the site in July 1998.

4.3 1999 to 2000

The May 1998 Work Plan was approved by NYSDEC in May 1999. Con Edison retained Sarnelli Brothers (“Sarnelli”) to conduct this additional remediation work, which was initiated in August 1999. HDR|LMS provided the identical services as was provided during the 1997 to 1998 remediation. STL was again retained as the mobile laboratory to analyze the PCB samples. Mitkem Corporation (“Mitkem”) was retained as the off-site laboratory to confirm the mobile laboratory samples.

TABLE 4-5 (1 of 2)

Originally Table 7-17 (June 2001 Remediation Report)

POST REMEDIATION DATA SUMMARY
CABLE VAULT SUMP DRAINPIPE EXCAVATION
 (May 1998 - June 1998)

PARAMETER	AFTER DRAINPIPE REMOVAL				AFTER FINAL EXCAVATION				RECOMMENDED SOIL CLEANUP OBJECTIVE (b)
	CVDP-02 ETL 8'	CVDP-02 ETL 8'	DL ETL 8'	DL ETL 8'	CVDP-04 ETL 11-12'	CVDP-05 ETL 6-9'	CVDP-06 ETL 6-9'	DL CVDP-06 ETL 6-9'	
SAMPLE DEPTH (FT)									
VOLATILE ORGANICS (mg/kg)	ND	♦	♦	♦	♦	♦	♦	♦	
SEMIVOLATILE ORGANICS (mg/kg)		[DL:10:1]		[DL:20:1]				[DL:10:1]	
Naphthalene	2.48	ND	ND	ND	ND	ND	0.185	ND	13.0
2-Methylnaphthalene	2.1	ND	ND	ND	ND	ND	ND	ND	36.4
Acenaphthylene	2.52	ND	ND	ND	ND	ND	0.385	ND	
Acenaphthene	1	8.47	ND	ND	ND	ND	0.802	ND	41.0
Dibenzofuran	3.48	ND	ND	ND	ND	ND	0.448	ND	6.2
Fluorene	1	9.95	ND	ND	ND	ND	0.817	ND	50.0 ***
Phenanthrene	1	1	62.0	ND	ND	ND	1	9.75	50.0 ***
Anthracene	1	16.9	ND	ND	ND	ND	1.84	ND	50.0 ***
Fluoranthene	1	1	53.1	ND	ND	0.335	1	10.2	50.0 ***
Pyrene	1	1	52.9	ND	ND	0.459	1	11.1	50.0 ***
Benzo(a)anthracene	1	22.6	ND	ND	ND	0.232	1	5.89	0.224 or MDL
Chrysene	1	19.3	ND	ND	ND	0.212	1	4.81	0.4
bis(2-Ethylhexyl)phthalate	1	ND	ND	ND	ND	0.859	0.538	ND	50.0 ***
Benzo(b)fluoranthene	1	22	ND	ND	ND	0.281	1	5.32	1.1
Benzo(k)fluoranthene	1	8.71	ND	ND	ND	ND	1.66	ND	1.1
Benzo(a)pyrene	1	19.3	ND	ND	ND	0.257	4.26	ND	0.061 or MDL
Indeno(1,2,3-c,d)pyrene	1	9.85	ND	ND	ND	0.147	2.04	ND	3.2
Benzo(g,h,i)perylene	1	11.9	ND	ND	ND	0.183	2.45	ND	50.0 ***

Note: Numbers in bold exceed objectives.
 1 - Value exceeded calibration range and needed further dilution to obtain an accurate value.
 ♦ - Not analyzed.
 *** - As per TAGM #4046, Total VOCs < 10 ppm, total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.
 (b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.
 e - Estimated concentration; exceeds GC/MS calibration range.
 DL - Diluted sample analysis.
 ND - Not detected at analytical detection limit
 MDL - Method detection limit

TABLE 4-5 (2 of 2)

Originally Table 7-17 (June 2001 Remediation Report)

POST REMEDIATION DATA SUMMARY
CABLE VAULT SUMP DRAINPIPE EXCAVATION
(May 1998 - June 1998)

PARAMETER	AFTER DRAINPIPE REMOVAL CVDP-02 ETL 8'	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
SAMPLE DEPTH (FT)			
METALS (mg/kg)			
Aluminum	8220	SB	33,000
Antimony	ND	SB	0.6 - 10 (n)
Arsenic	2.69	7.5 or SB	3.0 - 12.0 æ
Barium	55.6	300 or SB	15 - 600
Beryllium	0.415	0.16 or SB	0 - 1.75
Cadmium	ND	1 or SB	0.1 - 1.0
Calcium	4820	SB	130 - 35,000 æ
Chromium	16.7	10 or SB	1.5 - 40.0 æ
Cobalt	6.63	30 or SB	2.5 - 60.0 æ
Copper	30.1	25 or SB	1.0 - 50.0
Iron	11800	2,000 or SB	2,000 - 550,000
Lead	173	SB*	4.0 - 61 or 200 - 500*
Magnesium	2,810	SB	100 - 5,000
Manganese	186	SB	50 - 5,000
Mercury	0.081	0.1	0.001 - 0.2
Nickel	12.6	13 or SB	0.5 - 25
Potassium	1,690	SB	8,500 - 43,000 æ
Selenium	ND	2 or SB	0.1 - 3.9
Silver	ND	SB	0.1 - 5.0 (n)
Sodium	336	SB	6,000 - 8,000
Thallium	ND	SB	0.1 - 0.8 (q)
Vanadium	24	150 or SB	10 - 300
Zinc	64.5	20 or SB	9.0 - 50
Cyanide	ND	**	N/A

Note : Numbers in bold exceed objectives.

* - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

(q) - Bowan, H.J., Environmental Chemistry of the Elements.

TABLE 4-6 (1 of 2)

Originally Table 6-16 (June 2001 Remediation Report)

TRENCH INVESTIGATION SOIL DATA SUMMARY
(December 1997)

PARAMETER	TI-02 H2M	REGULATORY LEVEL (ug/l)
TCLP VOLATILE ORGANICS (ug/l)		
Vinyl Chloride	ND	200
1,1 Dichloroethene	ND	700
Chloroform	ND	6,000
1,2 Dichloroethane	ND	500
Carbon Tetrachloride	ND	500
Trichloroethene	ND	500
Chlorobenzene	ND	100,000
2-Butanone (MEK)	ND	200,000
TCLP SEMIVOLATILE ORGANICS (ug/l)		
1,4 Dichlorobenzene	ND	7,500
Hexachloroethane	ND	3,000
Nitrobenzene	ND	2,000
Hexachlorobutadiene	ND	500
2,4 Dinitrotoluene	ND	130
Hexachlorobenzene	ND	130
2,4,6 Trichlorophenol	ND	2,000
Pentachlorophenol	ND	100,000
2-Methylphenol (o-Cresol)	ND	200,000
2,4,5 Trichlorophenol	ND	400,000
3-Methylphenol (m-Cresol)	ND	200,000
4-Methylphenol (p-Cresol)	ND	200,000
Pyridine	ND	5,000
TCLP PESTICIDES (ug/l)		
Lindane	ND	400
Heptachlor	ND	8
Heptachlor Epoxide	ND	8
Endrin	ND	20
Methoxychlor	ND	10,000
Toxaphene	ND	500
Chlordane	ND	30
TCLP HERBICIDES (ug/l)		
2,4, D	ND	10,000
2,4,5-TP (Silvex)	ND	1,000
TCLP METALS (ug/l)		
Silver	ND	5,000
Arsenic	ND	5,000
Barium	0.58	100,000
Cadmium	ND	1,000
Chromium	0.01	5,000
Mercury	ND	200
Lead	0.09	5,000
Selenium	ND	1,000

ND - Not detected at analytical detection limit.

TABLE 4-6 (2 of 2)

Originally Table 6-16 (June 2001 Remediation Report)

TRENCH INVESTIGATION SOIL DATA SUMMARY
(December 1997)

PARAMETER	TI-01 STL	TI-02 H2M	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
Total METALS (mg/kg)				
Silver	♦	ND	SB	0.1 - 5.0 (n)
Arsenic	♦	6.4	7.5 or SB	3.0 - 12.0 æ
Barium	♦	87.8	300 or SB	15 - 600
Cadmium	♦	ND	1 or SB	0.1 - 1.0
Chromium	♦	9.1	10 or SB	1.5 - 40.0 æ
Mercury	♦	ND	0.1	0.001 - 0.2
Lead	♦	282	SB**	4.0 - 61 or 200 - 500**
Selenium	♦	0.9	2 or SB	0.1 - 3.9
Total Solids	♦	85.30%		
Flash Point	♦	ND	> 60° C	
pH (Corros.)	♦	9.7 Units	<2 / >12.5	
PCBs (mg/kg)				
Aroclor 1254	ND	♦		NA
Aroclor 1260	2.6	♦		NA
Total PCBs	2.6		10*	NA
Sample Depth	3-4 ft			
NYSDEC Clean-up Criteria (mg/kg)	≤ 10			

♦ - Not analyzed.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations. Sample collected from 3-4 ft below grade.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

æ - New York State background concentration.

(n) - Dragun, J., The Soil Chemistry of Hazardous Materials.

ND - Not detected at analytical detection limit.

SB - Site background.

By the end of January 2000, the remedial efforts in the substation building slab were completed. This included the removal of the slab and associated structures, sampling of underlying soils for PCBs, and removal of soils exceeding the cleanup criteria. Upon completion of the remedial activities and with the NYSDEC's approval, the area was backfilled with clean fill. The removal of the transformer yard slab and associated structures as well as sampling, and, if necessary, remediation of the underlying soils was completed by November 2000. All final post-excavation samples met the cleanup objectives for PCBs (see Section 5.0 for data).

As stated previously, NYSDEC requested that Con Edison delineate the extent of the metals contamination found near the transformer yard moat drain in January 1998. As a result of the delineation and sampling that determined that the metals were associated with the cinder layer, Con Edison elected to remove the entire cinder layer. This cindery layer, 0.5 to 1 ft thick, was most likely used as base material for the transformer yard when it was constructed.

The cinder removal activities were initiated in February 2000. After a portion of the cinder layer was removed, oily water and oily soils were encountered in several areas of the transformer yard, which halted cinder removal activities in March 2000. A series of test pits was completed in the area in order to investigate the potential source(s) of the oil.

Visual inspection of the test pits conducted near the underground duct banks indicated that some of these structures contained residual oil or oily water. Fingerprint analyses of the soil and oil/oily water samples collected from the test pits indicated that most of them contained dielectric fluid or transformer oil.

Visual inspection of the test pits conducted in the northwest corner of the transformer yard indicated the presence of fuel oil contamination. The fingerprint results for the soil samples collected from the test pits confirmed the presence of a fuel oil in the soil. The impacted soil appeared to be confined to an area approximately 50 feet long, 15 feet wide and 5 feet deep. A search of the New York Spills Database revealed a record of a fuel oil spill that occurred in May 1994 on the property located just north of the site behind the retaining wall. Jonel Development Corporation now owns this property, formerly the Shoreline Oil Company Terminal.

After completion of the test pit investigation, Sarnelli demobilized from the site in July 2000.

4.4 2001 to 2002

The remediation work completed on the site from 1996 to 2000 was summarized in the Remediation Report submitted to the NYSDEC in June 2001. At the same time, the June 2001

Work Plan that included the removal of the remaining cinder layer and the duct banks in the transformer yard was prepared and submitted to NYSDEC. The field work contained in this work plan was initiated in April 2002 and completed in August 2002 by Sarnelli and overseen by HDR|LMS.

In October 2001, Con Edison submitted a Work Plan for the fuel oil-contaminated area that was found during the test pit investigation in the northwestern corner of the transformer yard. After submittal and approval of this work plan, the soil was excavated to a depth of five ft and five post-excavation samples were collected by HDR|LMS for VOC and SVOC analysis in May 2002. Both the NYSDEC 1994 TAGM soil cleanup objectives and the NYSDEC Recommended Soil Cleanup Objectives for Fuel Oil Contaminated Soil (Ref. 24, Appendix A of this Report) were used as the remedial objectives (see Section 5.0 for results). None of the samples exceeded any cleanup objectives. HDR|LMS prepared a report, dated August 2002, entitled *Echo Avenue Site Fuel Oil Spill Report* (the "Fuel Oil Spill Report") that documented the cleanup conducted in the northwestern corner of the transformer yard (Ref. 25, Appendix A of this Report). The report was submitted to NYSDEC, which officially closed the Con Edison Echo Avenue spill (NYSDEC Spill No. 99-12989) on September 30, 2002 (Refs. 26 and 27, Appendix A of this Report).

4.5 2002 to 2003

In August 2002, Con Edison elected to conduct additional remediation work on the Site. A Work Plan was prepared and submitted to NYSDEC in October 2002. However, since the contractor, Sarnelli, was already on the Site, Con Edison elected to have Sarnelli initiate the work prior to submission and approval of the work plan. This work was conducted from August 2002 to May 2003 and included removal of all additional subsurface structures in the transformer yard (pedestals, manholes, and pullbox), removal of the cable vault and duct runs between the cable vault and transformer yard and tunnel, removal of all PILC between the cable vault and tunnel, sampling of the remaining monitoring wells, and abandonment of the wells after review of the sampling data. In addition, selected catch basins and drainpipes in the remainder of the Site were removed. Manhole No. 4 had been sampled and filled in with concrete as part of the 1996 to 1998 remediation. In addition, the cables from the street manholes (MH-5 and MH-6) to the concrete retaining wall in the transformer yard were removed and the duct banks cleaned and plugged on both ends as part of the 1996 to 1998 remediation (see Figure 1-3). These structures (the portion of the concrete duct banks from Echo Avenue to the west wall of the former transformer yard and MH-4) remain in place.

Because three of the six monitoring wells were destroyed during the previous remediation work and one well was bent so severely that it could not be sampled, only two wells could be sampled

on the Site during the final groundwater sampling event. These wells, EAMW-1 and EAMW-4 (see Figure 5-45 in the following section for location), were sampled in August 2002 and analyzed for TCL organics and TAL inorganics and compared to the Class GA Groundwater Standards. The results showed several metals that were above the standards or guidance values, some of which were attributed to saltwater intrusion from Echo Bay (Section 5.0 provides the results and shows the locations). After review of the data by the NYSDEC, Con Edison received permission to abandon the wells (Ref. 28, Appendix of this Report). These two wells plus one additional well that could not be sampled (EAMW-5), were abandoned in accordance with NYSDEC document, *Decommissioning Procedures NPL Site Monitoring Well Decommissioning* [Decommissioning Procedures (Ref. 29, Appendix A of this Report)] in January 2003.

The results of the remediation conducted from 2002 to 2003 were summarized in the July 2003 Remediation Report Addendum.

4.6 2003 to 2004

The RAWP prepared by TRC for the mudflat area was approved by NYSDEC in June 2003 and included a pre-design sampling program which occurred in July 2003. A total of sixty sediment samples were collected from fifteen locations with the locations surveyed using global positioning system ("GPS") equipment. As a result of the pre-design sampling, six 'hot spots' in addition to the four original AOCs were identified that required remediation. The results in the hot spots ranged from 1.1 to 3.5 mg/kg of PCBs.

The remediation of the mudflat area took place in three phases:

- Phase 1 - October 27 to November 5, 2003
- Phase 2 - December 15 to 23, 2003
- Phase 3 - March 8 to April 22, 2004.

The remediation was done in stages due to poor weather conditions and a lack of a receding low tide during the first two stages that prevented access to the outer reaches of the excavation. Samples were collected to confirm that the remedial objective of 1.0 mg/kg for PCBs was met.

On December 19, 2003, NYSDEC requested that a sample be collected from area AOC-1 where a fuel oil odor was detected and a sheen was observed on the sediment. The sample was analyzed for TCL VOCs and SVOCs (the results are discussed in Section 5.0)

After the remediation was complete, the excavated area was backfilled with a combination of clean certified top soil and sand. The results of the mudflat remediation were reported by TRC in the RAR prepared in February 2005.

4.7 2007

Based on a review of TRC's RAR (Ref. 22, Appendix A of this Report) for the sediment remediation activities conducted in 2003 and 2004 and a review of the sediment sample results collected by HDR|LMS, there appeared to be three locations where samples collected by HDR|LMS contained concentrations of PCBs above 1 mg/kg and additional sediment was not removed during the remediation activities by TRC. HDR|LMS contacted Con Edison to discuss this information after review of the various reports was completed. A Site visit was conducted by Con Edison, TRC, and HDR|LMS on January 12, 2007 to have personnel involved with the sampling activities from TRC and HDR|LMS look at the locations in question. Apparently, TRC was not provided with HDR|LMS' report which contained the data from these three locations [*Report on Sampling Required in Revised Addendum No. 2 Final Work Plan* (the "April 1996 Revised Report") dated April 1996 (Ref. 8, Appendix A of this Report)] when they were preparing their proposal and the RAWP for the sediment remediation activities. The following paragraphs describe the three locations in question (see Figure 4-1, formerly Figure 4-5 from the April 1996 Revised Report for the location of these samples).

One location, EAEBSD-16A, is under the overhead pipes leading from the abandoned fuel oil barge dock to the west towards Echo Avenue where the former oil terminal was located. During the remediation activities, TRC was concerned about the condition of this deteriorated structure and the safety of its workers and the possibility of the release of oil from the pipes if they broke. They conducted remediation excavation work in this area by hand and received permission from NYSDEC to excavate to within 2 ft of the pipes further to the west so they would not be undermined. The sediment at location, EAEBSD-16A, was not removed by TRC as part of the 2003 to 2004 TRC remediation activities.

Based on the discussions and a review of photos taken during TRC's remedial activities during the site visit on January 12, 2007, TRC confirmed that they had excavated sediment just north of EAEBSD-13A when working in the VS-04 area. However, it does not appear that sediment was removed this close to the steel bulkhead in this area (EAEBSD-13A was collected 8 ft from the bulkhead).

When TRC was removing sediment from the VS-03/AOC-3 area, it temporarily placed clean material down on top of the EADPOSD-5 area to position the excavator to be able to reach the VS-03/AOC-3 location. When the excavation activities were completed in this area, the clean

ECHO BAY

APPROXIMATE SHORELINE
AT HIGH WATER

NOTE:

The sediment sample locations that exceeded 1 mg/kg were resampled on 12 February 2007 and found to contain <1mg/kg PCBs (See Table 4-7)

● EAEBS-1A, EAEBS-13A, EAEBS-16A

✕ EADPOSD-01 through EADPOSD-6,7

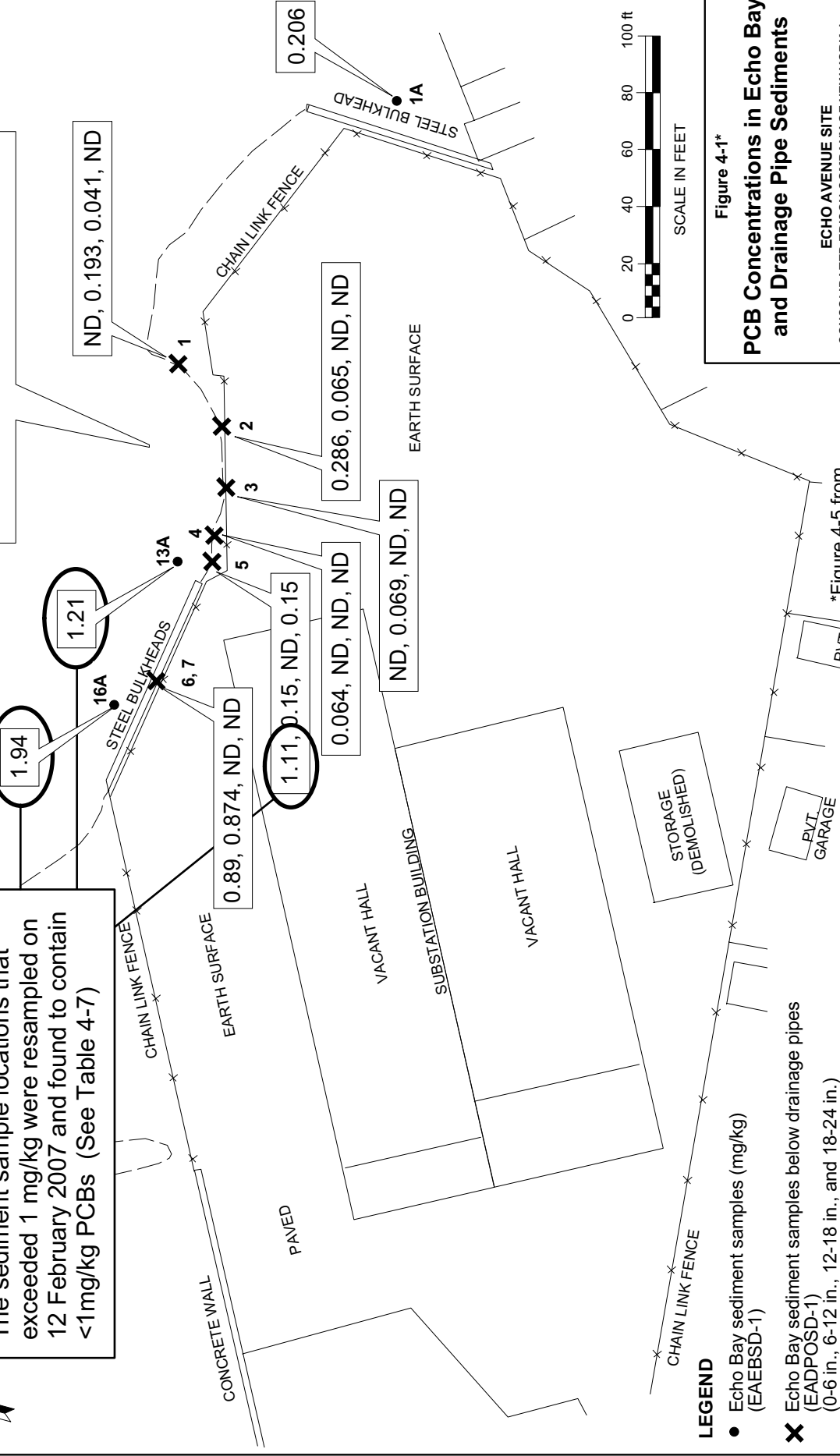


Figure 4-1*

PCB Concentrations in Echo Bay and Drainage Pipe Sediments

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 4-5 from
April 1996 Revised Report
April 1996 Revised Report

10115-190_SLAB_SAMPLING\Graphics\IDTP\FinalDraft\Figures\Fig4-1_DrainagePipeSedimentPCBResults.dsf

fill material previously placed was removed and that which was in contact with the sediment was disposed. It is possible that the surface of this area was excavated during this process. However, the deteriorated wooden crib that EADP-5 drained into was still visible suggesting that TRC did not remove the fill material much below the top of the sediment in this area. Therefore, it appeared that the sediment at location EADPOSD-5 had not been removed by TRC. As mentioned previously in this Section, the results from these three sediment samples collected in 1995 ranged from 1.11 to 1.94 mg/kg PCBs (see Figure 4-1).

Subsequent to the site visit, Con Edison elected to resample the three locations in question from the mudflat area (EAEBSD-13A, -16A, and EADPOSD-5) to determine the current concentration of PCBs at these locations. Con Edison retained HDR|LMS to collect the three samples; the sampling event was conducted on February 12, 2007.

Sediment samples were collected from the 0-2 ft interval at these three locations. A hole was dug to a depth of 2 ft with a clean shovel in the original sample locations (based on photographs and measurements from nearby landmarks). A laboratory-cleaned, stainless steel spoon was then used to scrape sediment from the sides of the hole from 0-2 ft. The sediment was placed in a laboratory-cleaned, stainless steel howl, homogenized, and placed in laboratory-supplied sample containers. The samples were labeled (EAEBSD-13A-R, -16A-R, and EADPOSD-5-R), placed in an iced cooler, and shipped to the analytical laboratory (Mitekem Corp.) under chain-of custody protocol. A blind duplicate sample, a field rinseate blank sample, and matrix spike and matrix spike duplicate samples were collected and submitted to the analytical laboratory with the three sediment samples to provide the applicable QA/QC samples. All samples were analyzed for all PCB aroclors.

The results of the resampling showed that these three locations do not contain PCB concentrations above 1 mg/kg in the sediment from the 0-2 ft depth interval. EADPOSD-5-R and a blind duplicate sample collected at this location (EADPOSD-5-R-D) contained no detectible concentrations of PCBs, and the samples from EAEBSD-13A-R and EAEBSD-16A-R contained PCB concentrations of 0.88 and 0.54 mg/kg, respectively. The results are presented in Table 4-7; only aroclors that were detected are provided on the table.

5.0 SUMMARY OF CONTAMINANT LEVELS REMAINING ON SITE

This Section summarizes the levels of contaminants remaining at various locations on the site. The discussion has been subdivided into soil contaminant levels both on adjacent residences and on site, on site groundwater contaminant levels, and contaminant levels in the mudflat sediment of Echo Bay. Where appropriate, figures showing the final confirmatory contaminant levels have been provided.

Table 4-7

SEDIMENT DATA SUMMARY
MUDFLAT SEDIMENTS
 (February 2007)

Sample ID	EAEBSD-13A-R	EAEBSD-16A-R	EADPOSD-5-R	EADPOSD-5-R-D	FB-01
Date	2/12/2007	2/12/2007	2/12/2007	2/12/2007	2/12/2007
Analytical Laboratory	MITKEM	MITKEM	MITKEM	MITKEM	MITKEM
			(Blind Duplicate of EADPOSD-5-R)		(Field Blank)
PCBs (mg/kg)					(µg/l)
Aroclor 1254	0.88	0.54	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND
Total PCBs	0.88	0.54	ND	ND	ND
Sample Depth	0-2 ft	0-2 ft	0-2 ft	0-2 ft	1-2'
NYSDEC Clean-up Criteria (mg/kg)	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1

-- MITKEM data not validated.

J - Estimated concentration; compound present below quantitation limit.

p - Estimated concentration; Pesticide/Aroclor target analyte has >25% difference for the detected concentrations between the two GC columns.

s - Estimated concentration; solids below 50%.

DL - Diluted sample analysis.

ND - Not detected at analytical detection limit.

MITKEM - Off-site laboratory

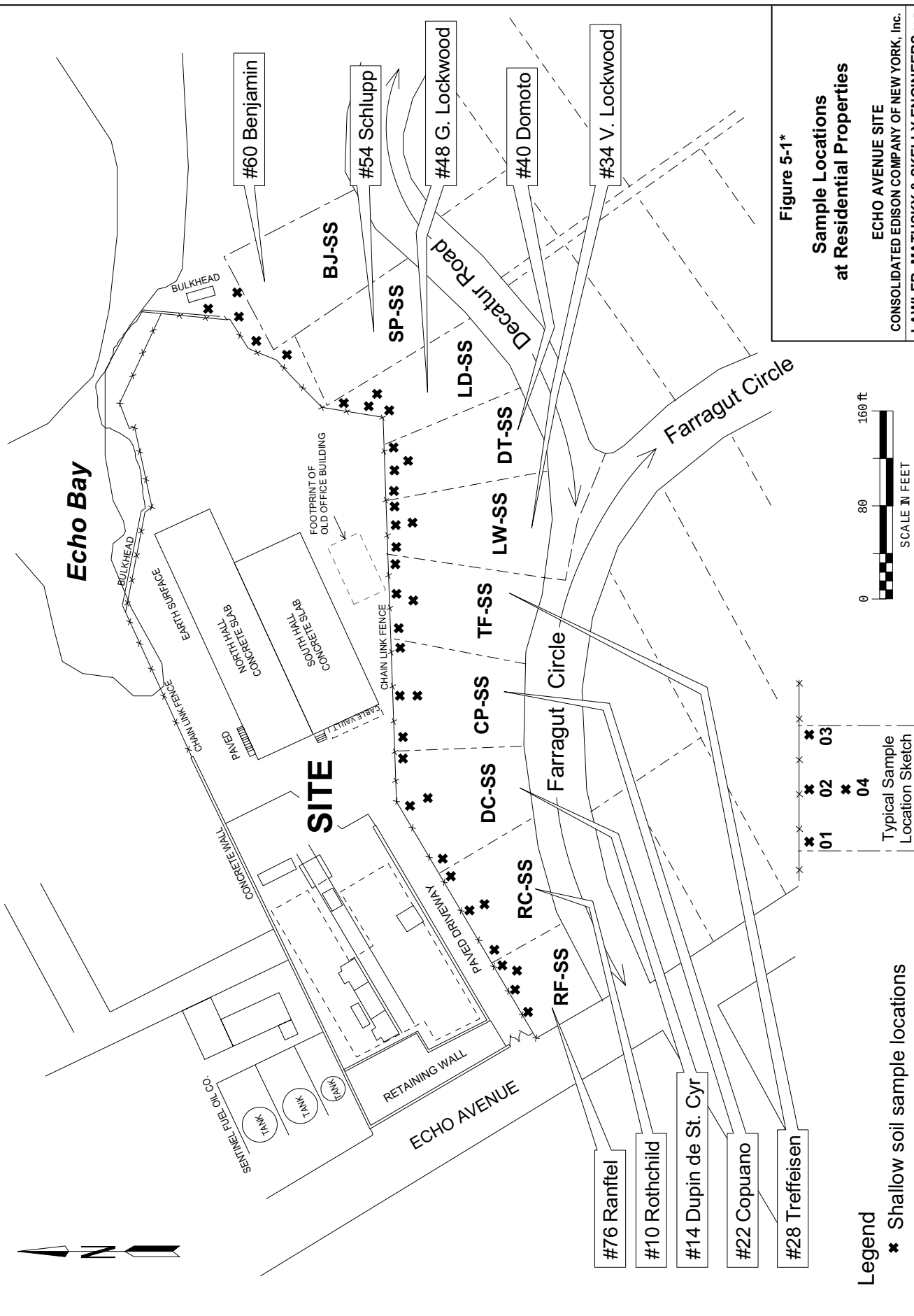
5.1 SOIL

The following sections describe the contaminant levels remaining in soil on- and off-Site. Figures are provided that show the confirmatory sample analyses after remediation was completed or where investigations determined that no contamination existed. In Section 6.0 overall figures are presented that show the contaminant levels that remain throughout the Site.

5.1.1 Adjacent Residences

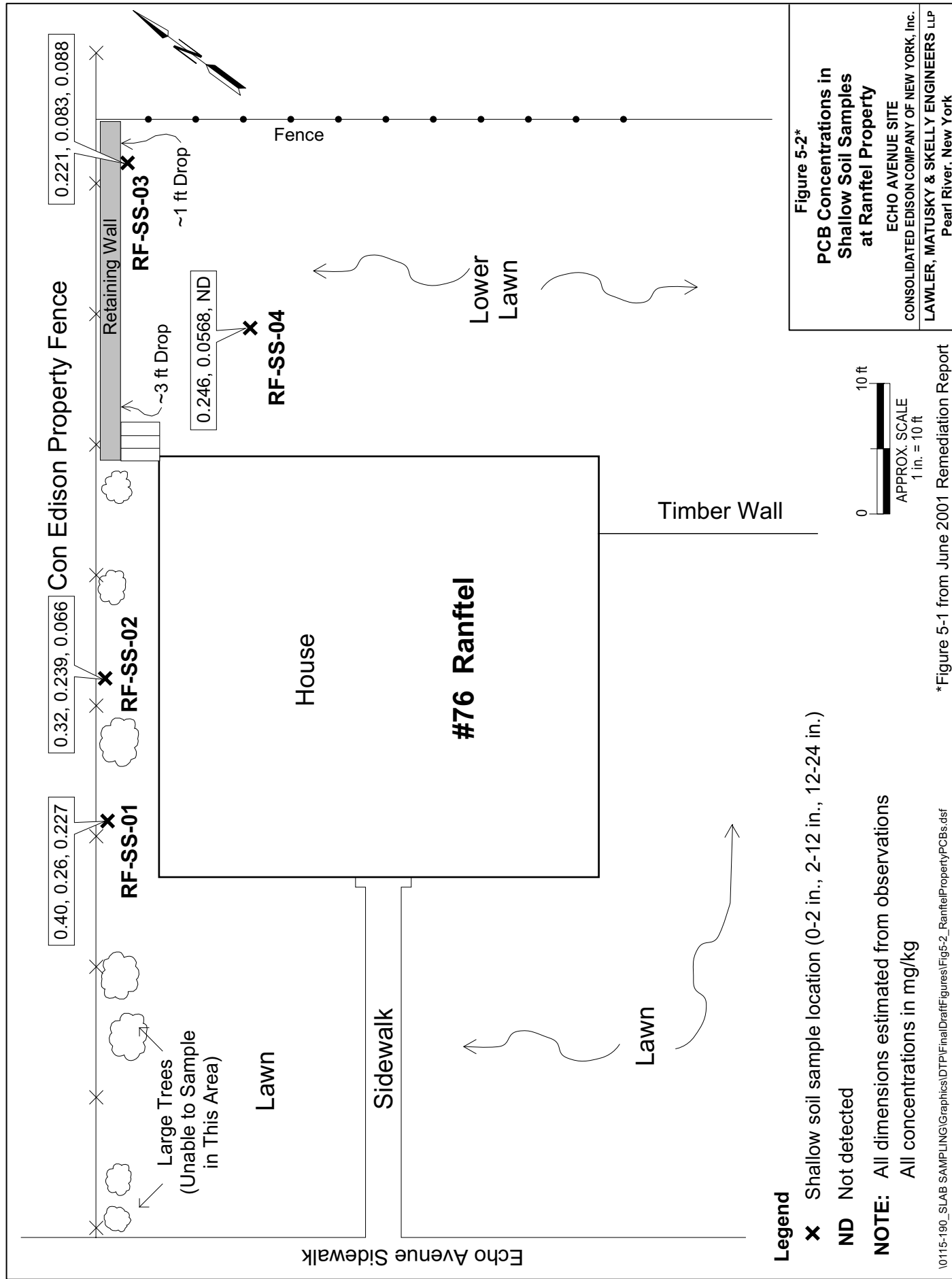
As part of the Site investigations, soil samples, i.e., ≤ 2 ft deep, were collected from ten residential properties located adjacent to the former Con Edison Echo Avenue substation in 1996 (see Figure 5-1, formerly Figure 3-1, from the June 2001 Remediation Report). Some of the owners have changed from the time the sampling was conducted. In this section if a new owner exists, the name is in parenthesis after the name during the sampling event; the address is also provided in parenthesis. The owner information and owner address were obtained from the City of New Rochelle 2008 Tentative Assessment Roll (Ref. 30, Appendix A). At six of these residences: Ranftel (76 Echo Avenue, Mullings) Rothchild (10 Farragut Circle, Deutsch Bank), Domoto (40 Decatur Road, Mines), G. Lockwood (48 Decatur Road, Martinez), Schlupp (54 Decatur Road), and Benjamin (60 Decatur Road), no PCBs above the cleanup level of ≤ 1 mg/kg at a depth of ≤ 2 ft were found. Figures 5-2, 5-3, 5-4, 5-5, 5-6, and 5-7, formerly Figures 5-1, 5-2, 5-7, 5-8, 5-9, and 5-10, from the June 2001 Remediation Report, respectively, document the PCB levels remaining at these six residences. Four of the residences: Dupin de St. Cyr (14 Farragut Circle), Copuano (22 Farragut Circle), Treffeissen (28 Farragut Circle), and V. Lockwood (34 Decatur Road) had PCBs above the cleanup objective for surface soils (≤ 1 mg/kg for soils ≤ 2 ft deep) and therefore, required remediation. Figures 5-8, 5-9, 5-10, and 5-11, formerly Figures 7-1, 7-2, 7-3, and 7-4a to 7-4m, from the June 2001 Remediation Report, show the final confirmatory PCB concentrations after the remediation was completed at the Dupin de St. Cyr, Copuano, Treffeissen, and V. Lockwood residences, respectively. Figure 5-11 is a composite of Figures 7-4a – 7-4m. The excavation at the V. Lockwood property extended onto the Con Edison property and ranged from between 0.5 ft deep to 8 ft deep. The excavation had continued until all confirmatory PCB sample results met the RSCOs in TAGM 4046. This is the reason that the results provided on Figure 5-11 are for different sections. Figure 5-11a shows only the data where PCBs are found at concentrations of greater than 1 mg/kg. Note that all the locations where PCBs were detected at greater than 1 mg/kg are at depths greater than two ft bgs.

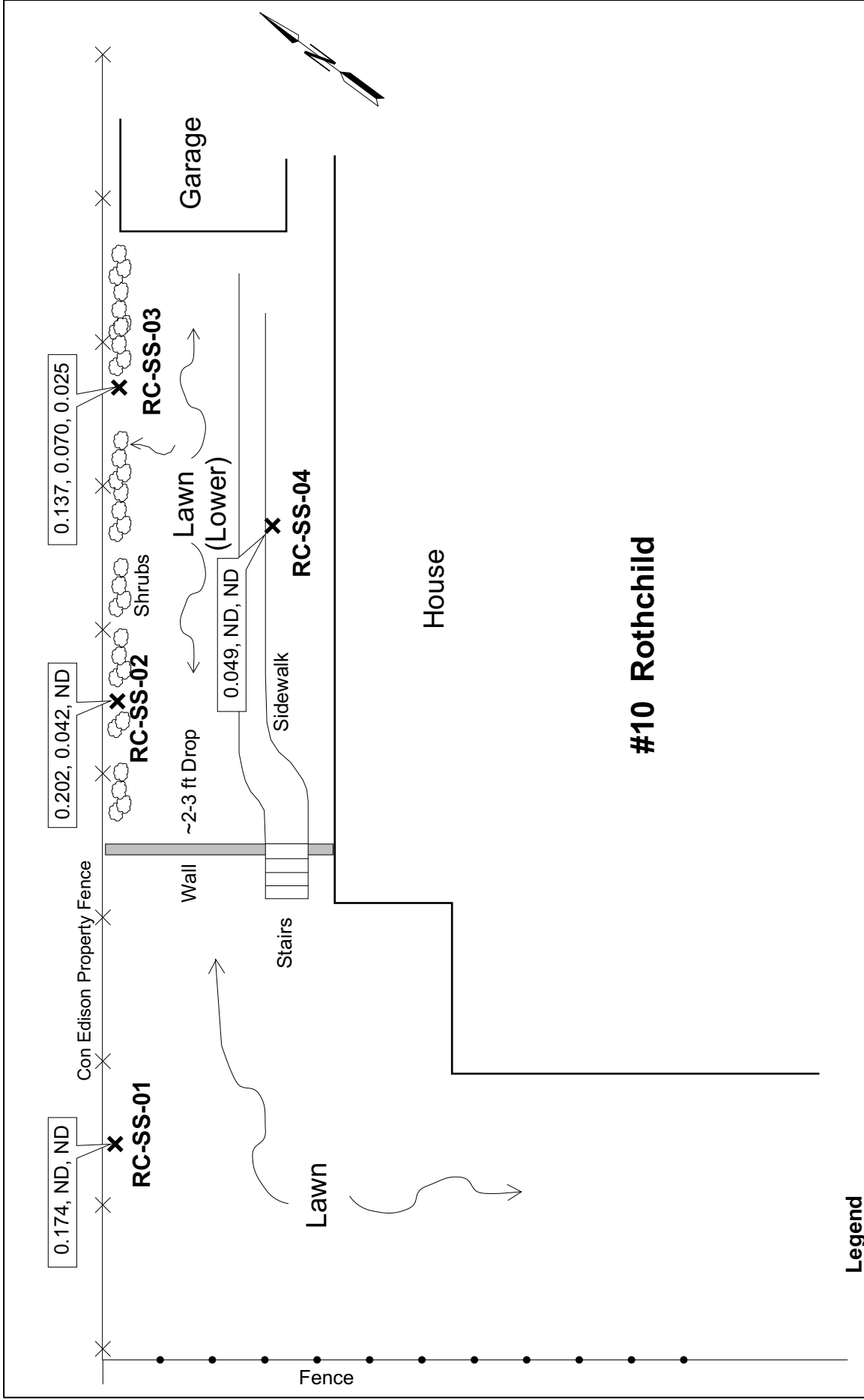
As stated in Section 4.2, one sample was collected from the V. Lockwood excavation on the Con Edison property and analyzed for TCL organics and TAL inorganics. After the results (provided in Table 4-1) were received from this sample, WTD-01, NYSDEC authorized Con Edison to backfill the area.

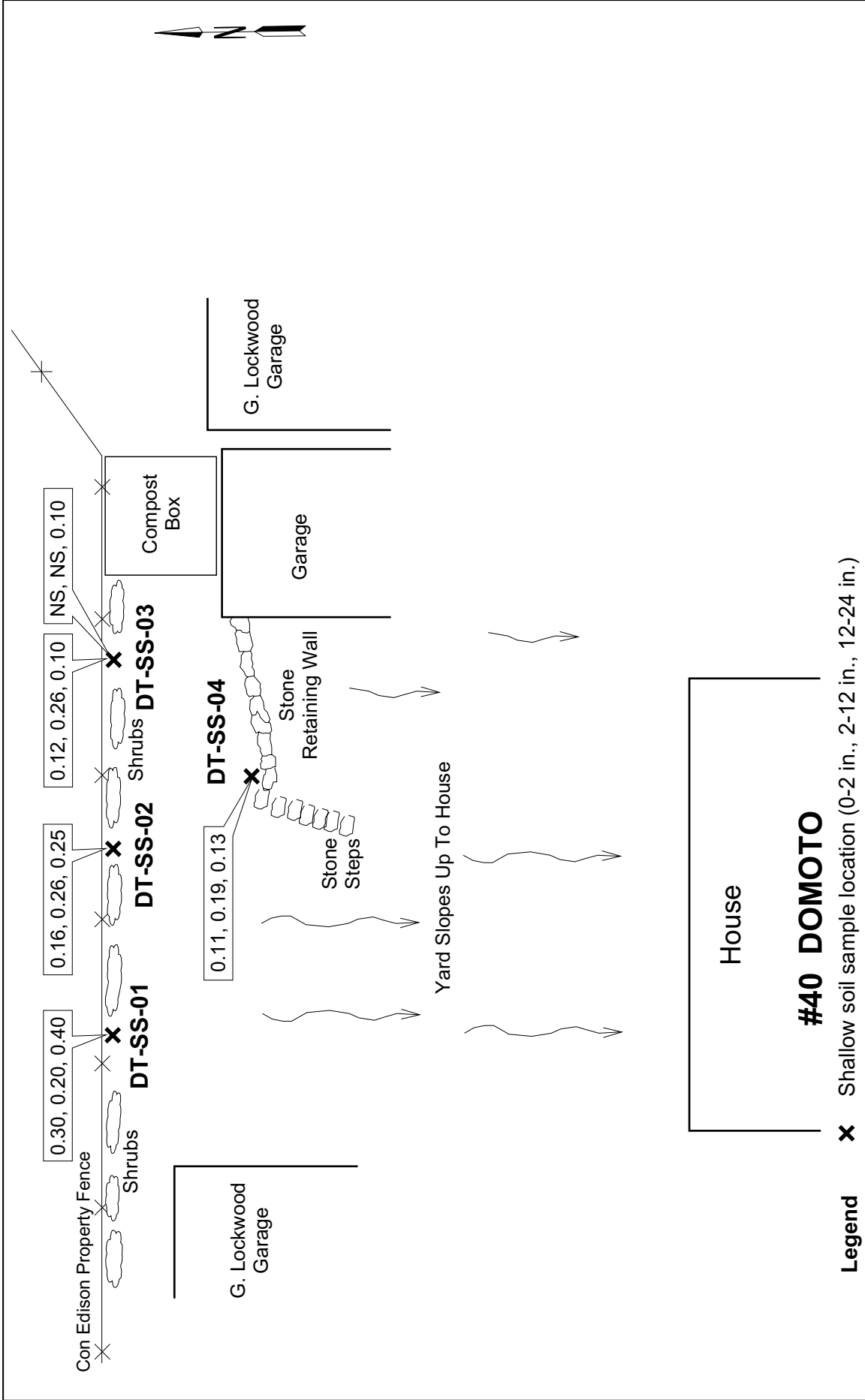


*Figure 4-1 from June 2001 Remediation Report

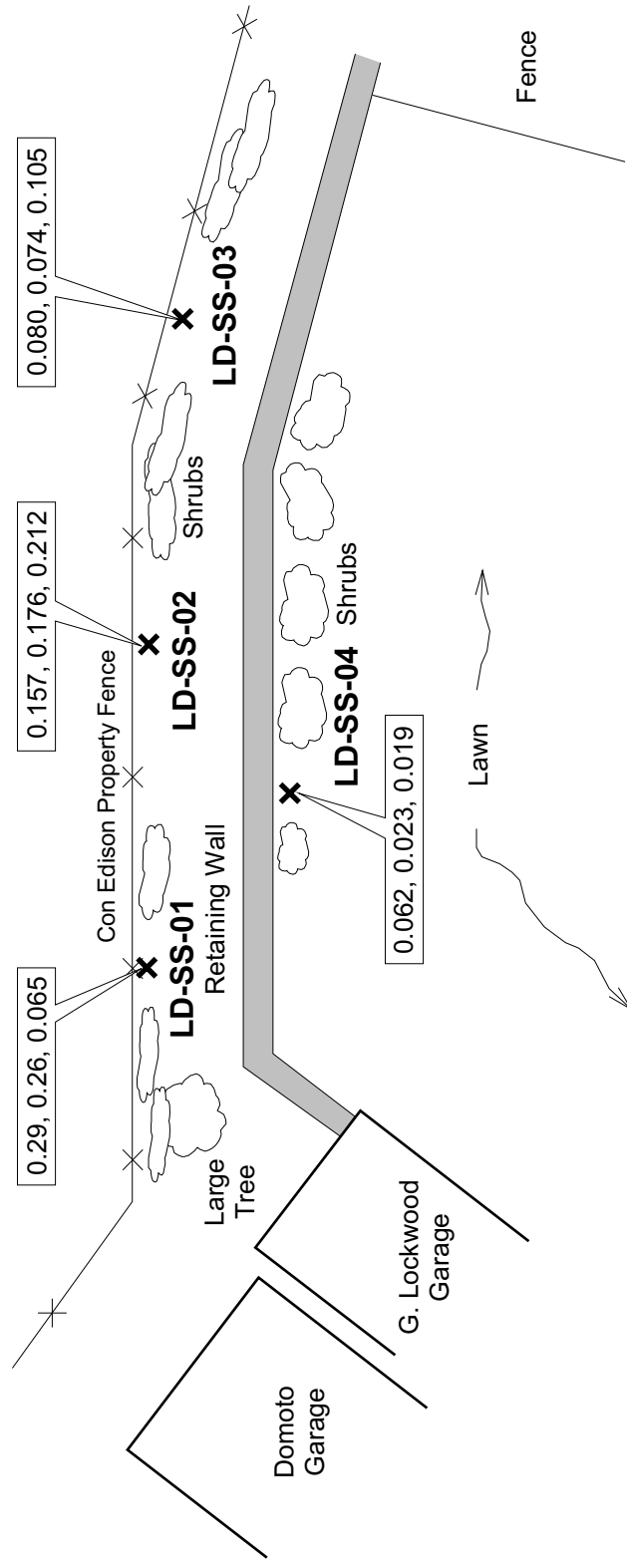
\\0115-190_SLAB_SAMP\\LING\\Graphics\\DTP\\Final\\DraftFigures\\Fig5-1_ResidentialSamples.dsf







*Figure 5-7 from June 2001 Remediation Report



NOTE:
There is a 2 ft drop at retaining wall. It appears that they compost leaves in areas between wall and fence.

Legend

- X** Shallow soil sample location (0-2 in., 2-12 in., 12-24 in.)
- ND** Not detected

NOTE: All dimensions estimated from observations
All concentrations in mg/kg

Figure 5-5*

PCB Concentrations in Shallow Soil Samples at G. Lockwood Property

ECHO AVENUE SITE

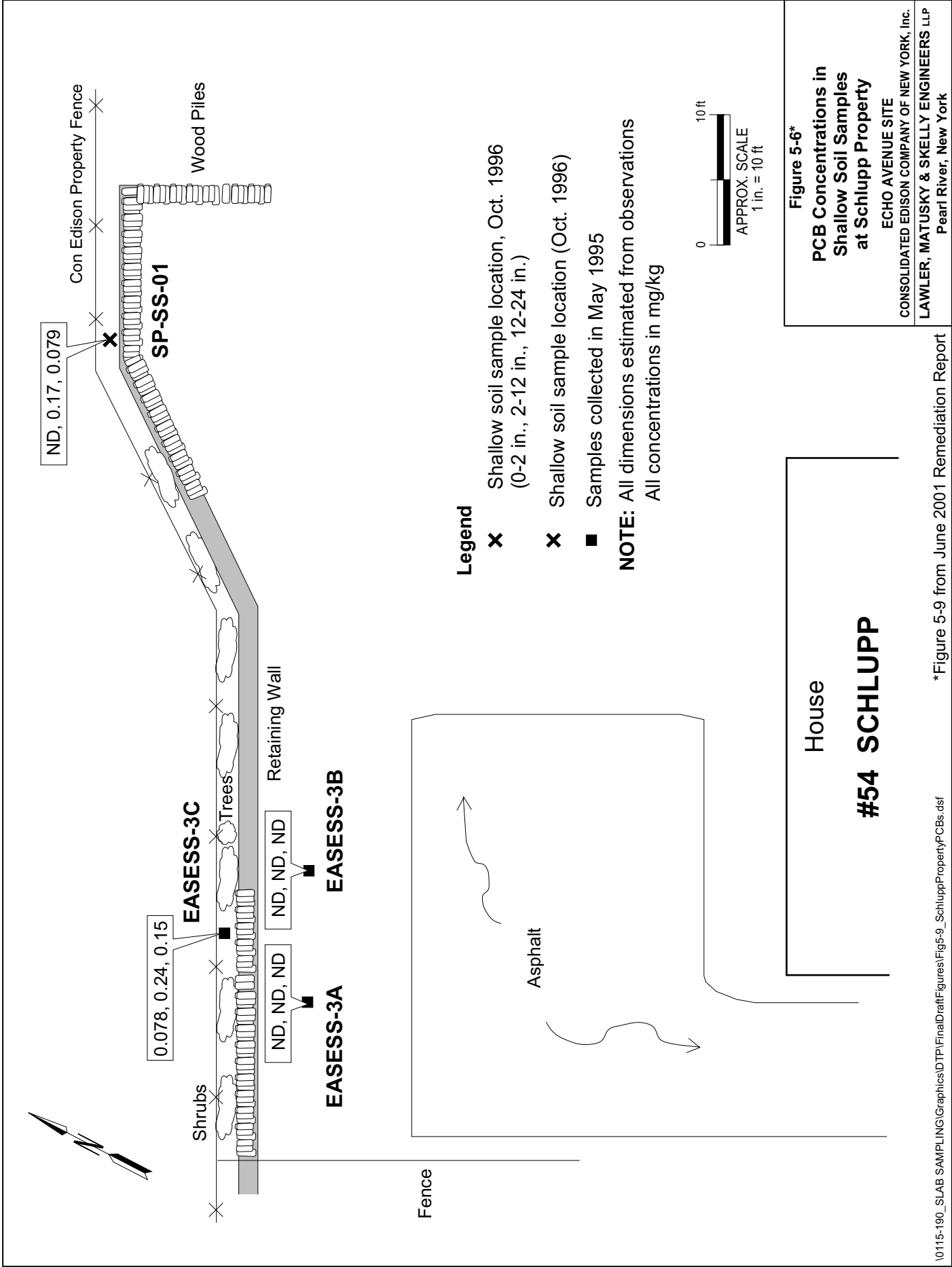
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.

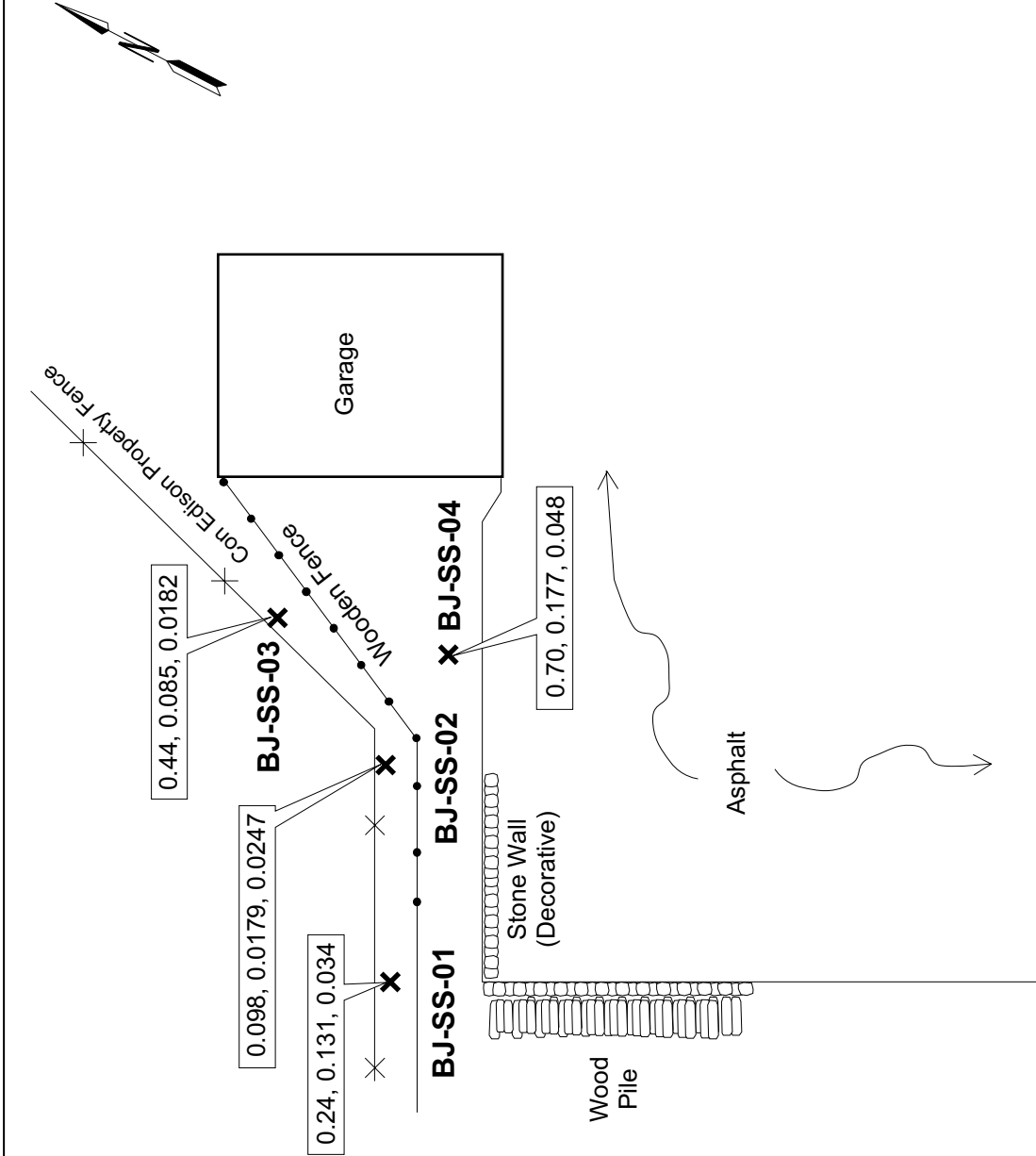
LAWLER, MATUSKY & SKELLY ENGINEERS LLP

Pearl River, New York



*Figure 5-8 from June 2001 Remediation Report





Legend

X Shallow soil sample location
(0-2 in., 2-12 in., 12-24 in.)

NOTE: All dimensions estimated from observations
All concentrations in mg/kg

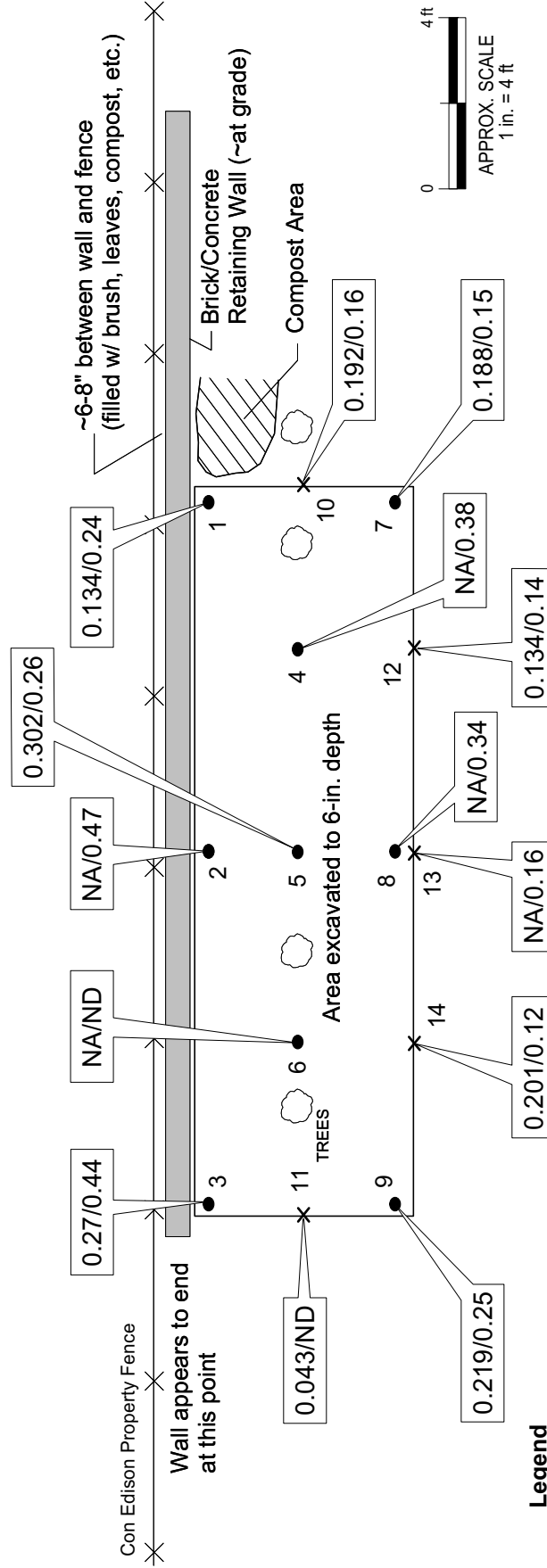
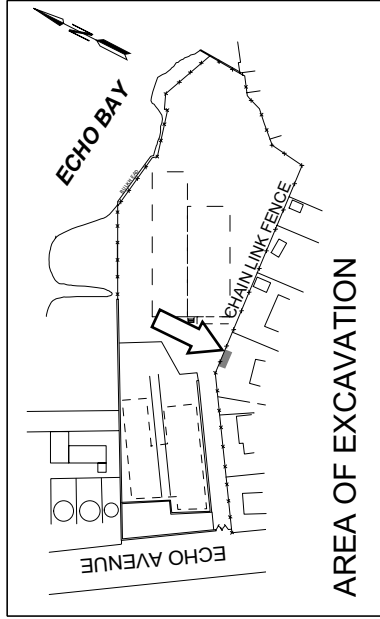
House
#60 BENJAMIN

*Figure 5-10 from June 2001 Remediation Report

I:\0115-190_SLAB SAMPLING\Graphics\DTPI\FinalDraft\Figures\Fig5-7_BenjaminPropertyPCBs.dsf

Figure 5-7*

**PCB Concentrations in
Shallow Soil Samples
at Benjamin Property**
ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



NOTE:
All sample numbers are prefixed with DCE-, e.g., DCE-01

*Figure 7-1 from June 2001 Remediation Report

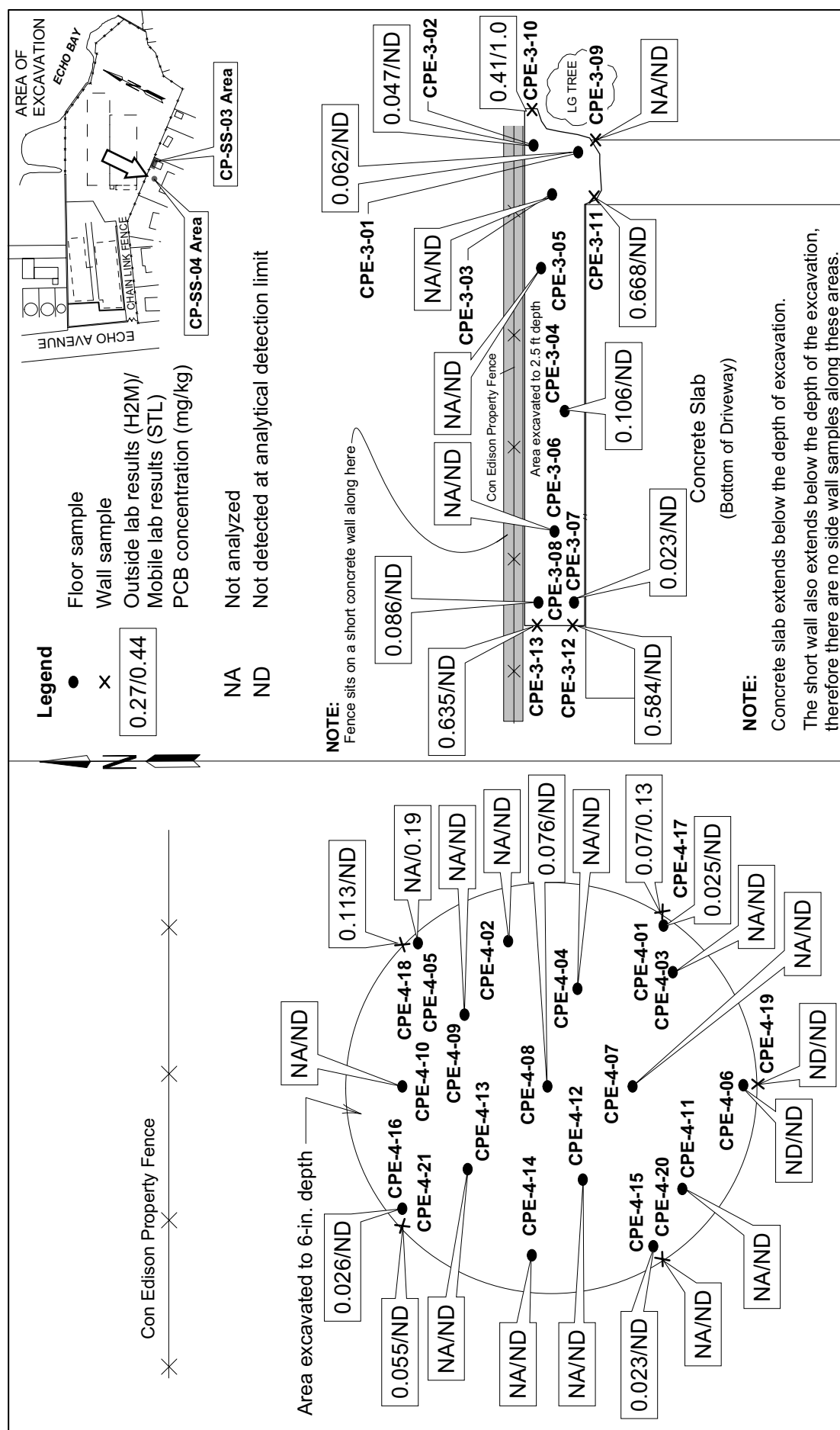
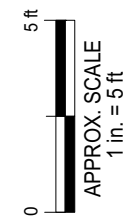


Figure 5-9*

CP-SS-03 Area

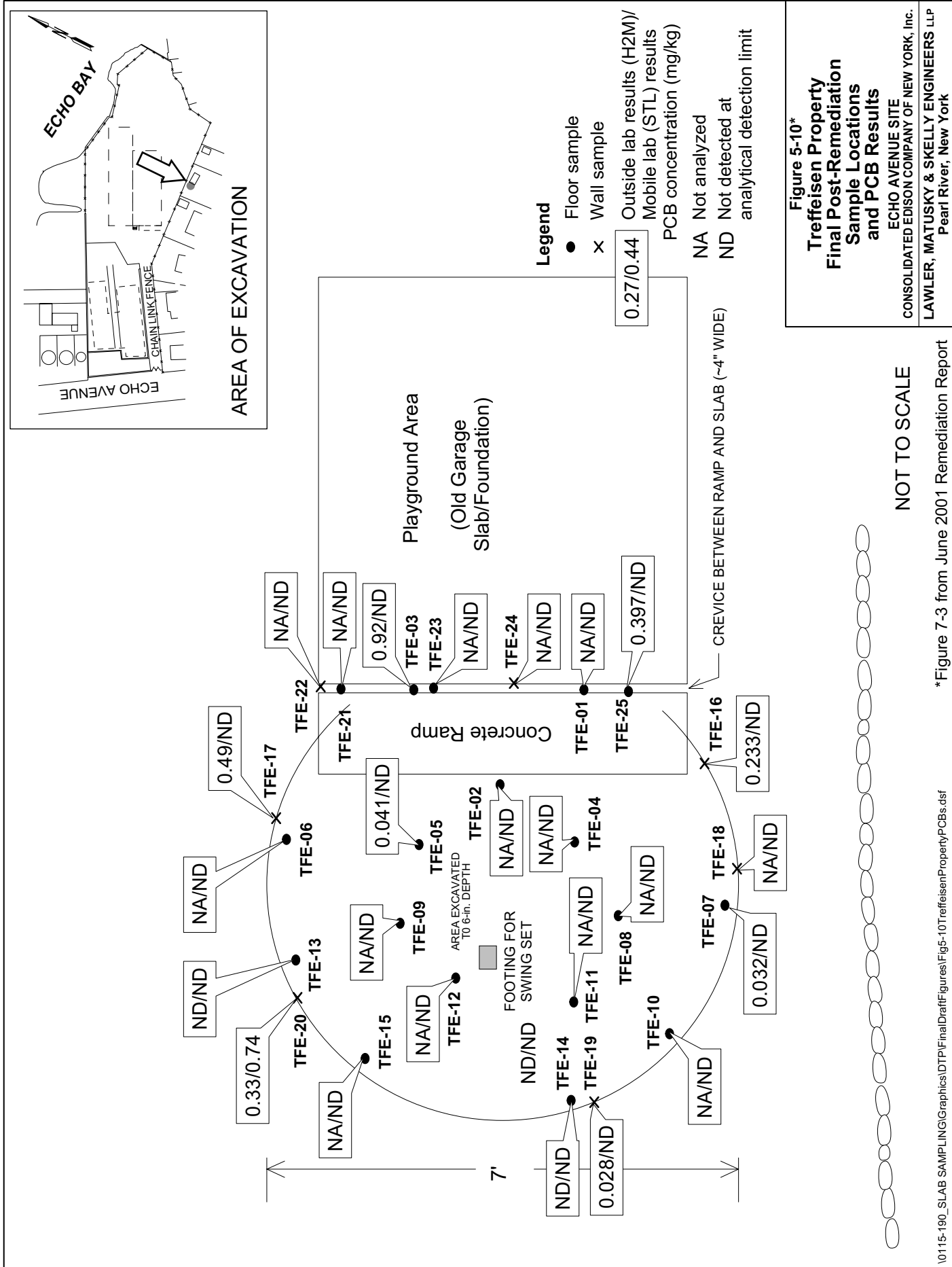


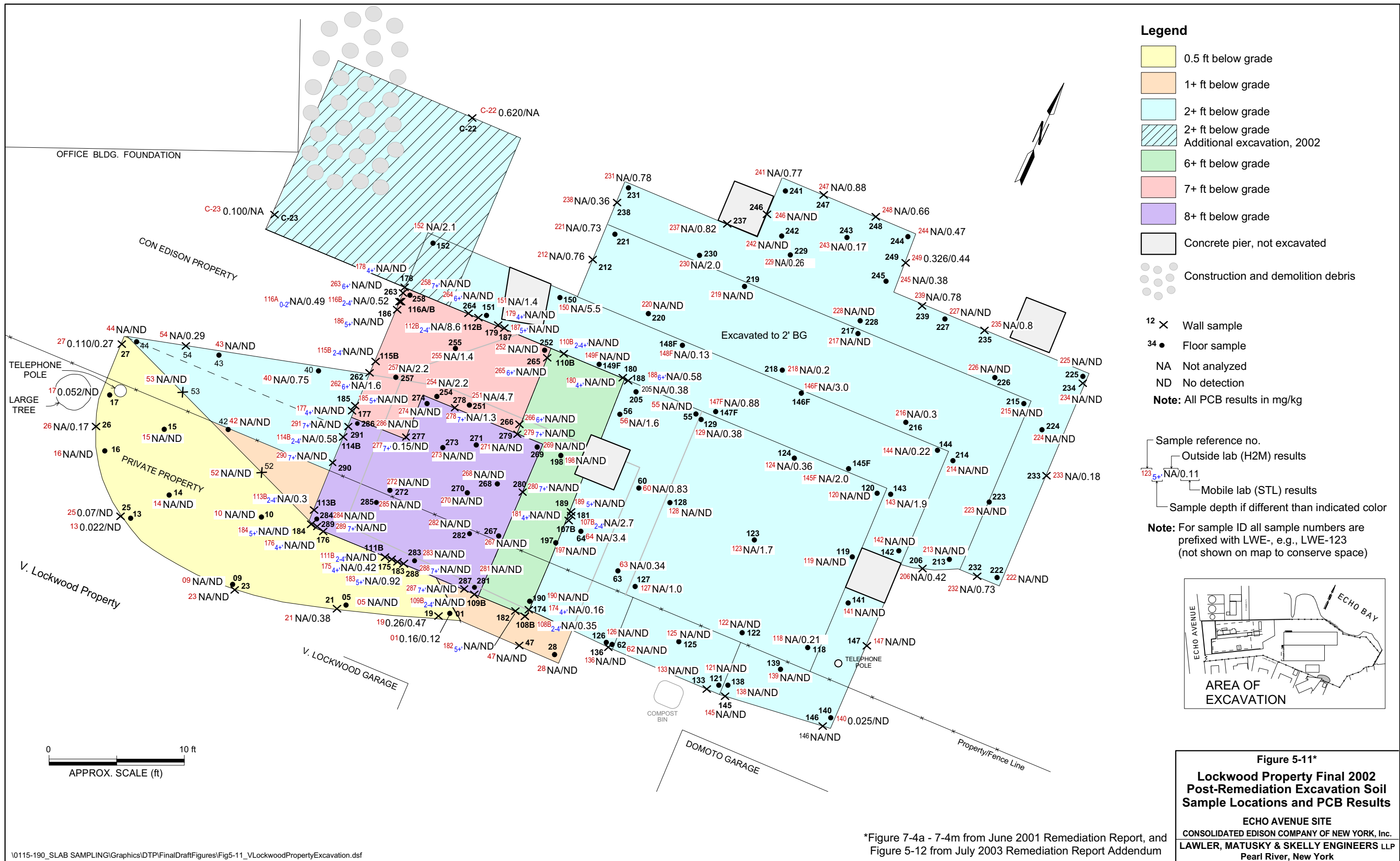
*Figure 7-2 from June 2001 Remediation Report

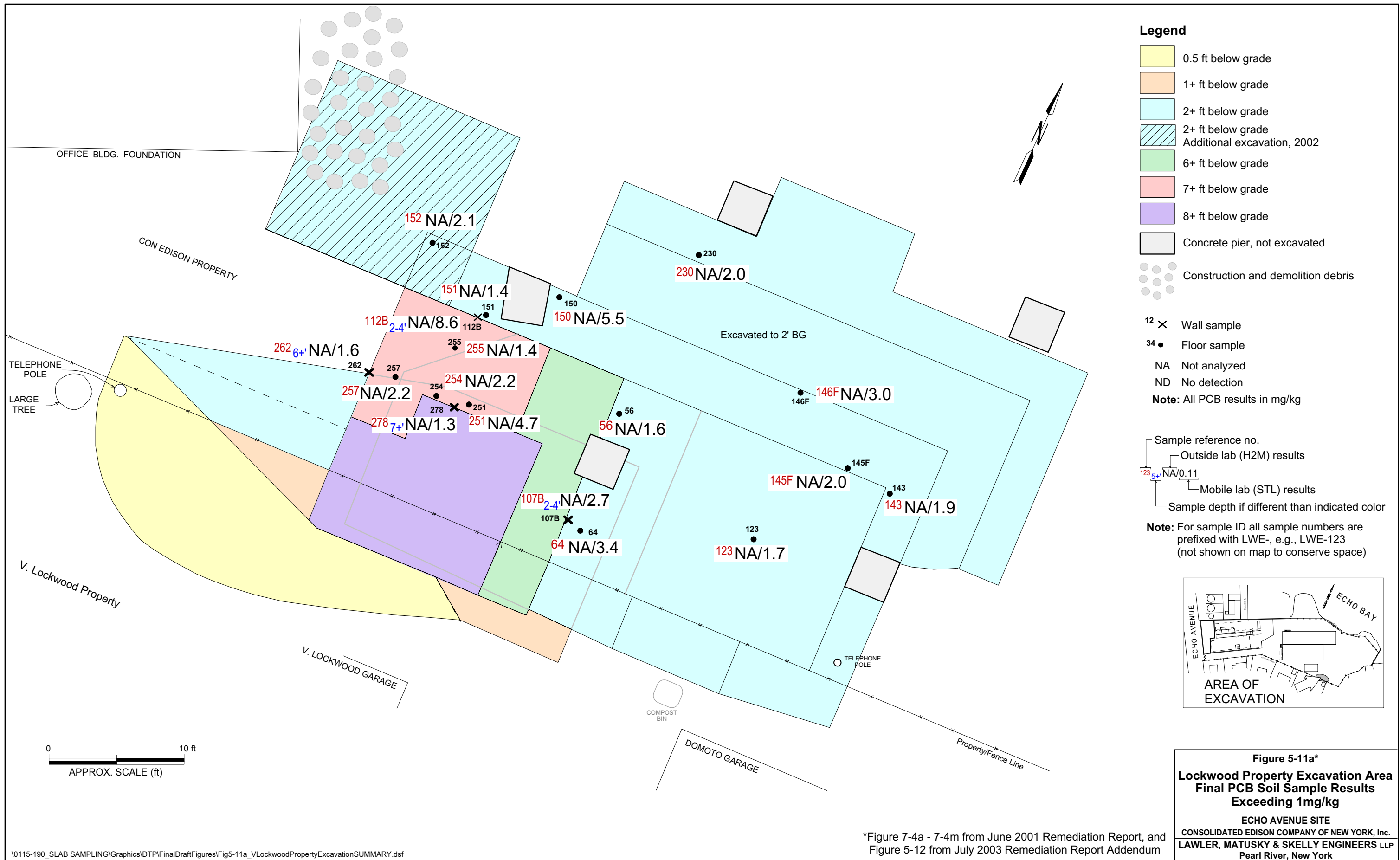
CP-SS-04 Area



ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York





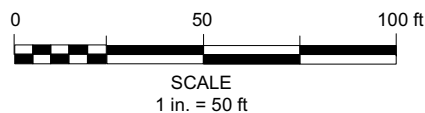
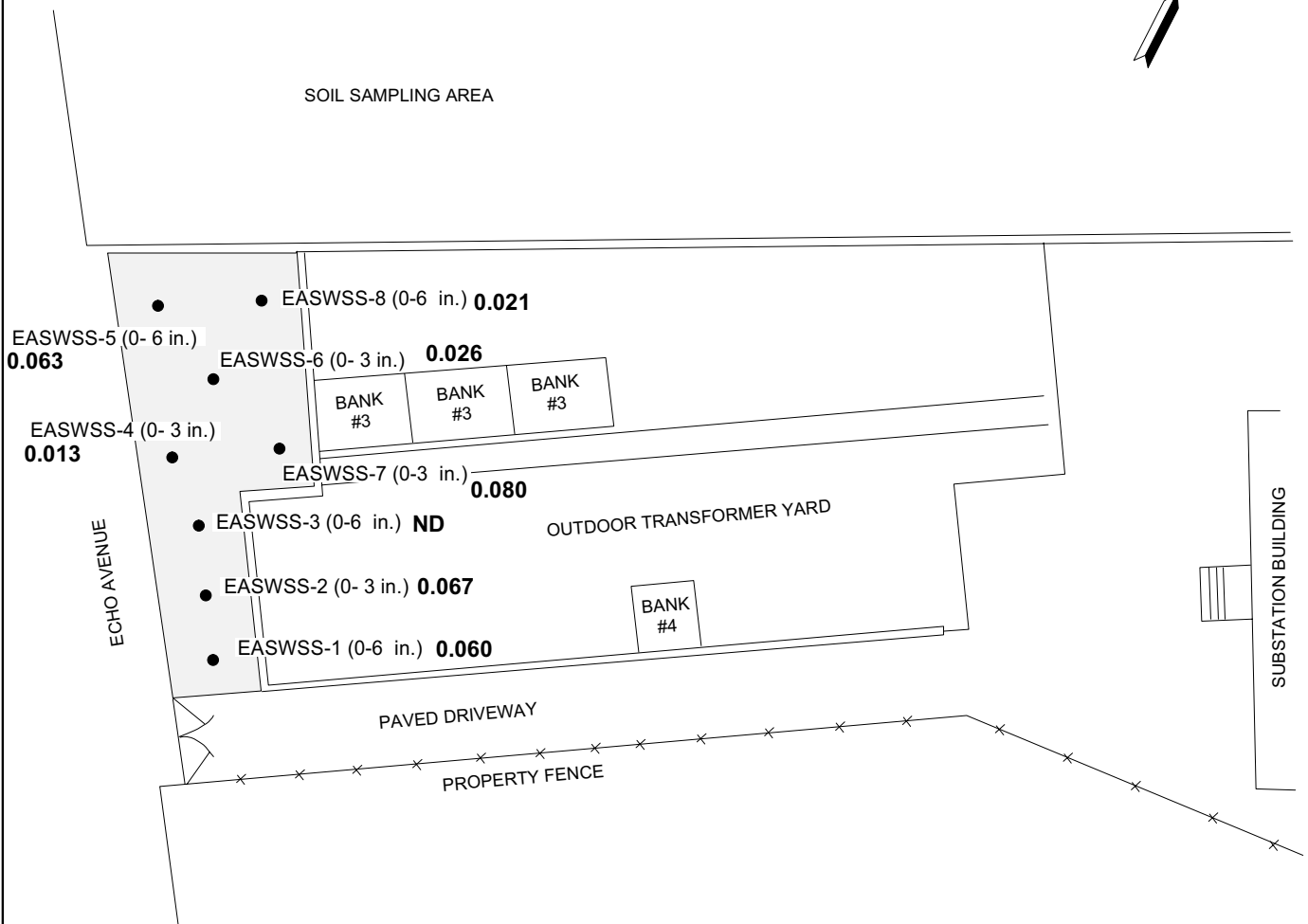
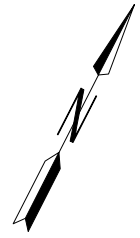


After the remediation for each residence was completed, the area was backfilled with clean top soil and restored as nearly as possible to the pre-remediation condition. The V. Lockwood residential remediation extended onto the Con Edison property (see Figure 5-11). On the Con Edison property, the excavated area was partially filled with clean stone and backfilled with clean certified fill. The remediation was completed in March 1998. In 2002, NYSDEC requested that additional soil be re-excavated in the area of one sample from the V. Lockwood excavation. The sample, LWE-156, had 1.4 mg/kg of PCBs in soil less than 2 ft deep. The initial results of this wall sample from the mobile laboratory indicated it was below 1 mg/kg; however, the mobile laboratory data were reviewed in a QC process by the analytical laboratory. The revised results (1.4 mg/kg) were received after the excavation area had already been backfilled. This location was on the Con Edison property portion of the excavation area. The results of the additional excavation that was required by the NYSDEC have been added to Figure 5-11. The area was backfilled with clean certified backfill after the confirmatory sample results were received.

5.1.2 On-Site Soils (Other than Soils Addressed in Sections 5.1.3-5.1.6)

As part of the Phase II investigation conducted on the site in 1992, shallow soil samples and deeper soil samples were collected on-site. At two areas, EASW and EASE, shallow soils were sampled in 1992 (see Figure 5-12 and 5-13, formerly Figures 4-20 and 4-18, respectively, from the February 1993 Phase II Investigation report). Figure 5-13 also shows the data collected from soil borings constructed on the site in 1992. With the exception of soils collected during the construction of monitoring well MW-6, all samples were analyzed only for PCBs. At six additional scattered locations throughout the Site, shallow soil samples were collected and labeled with the EADEC prefix. Three of the samples, EADEC-B, D, and E were analyzed for TCL organics and TAL inorganics; all of the remaining samples were analyzed for PCBs only (see Figure 5-14, formerly Figure 4-19 from the February 1993 Phase II Investigation report for location). None of the samples in the EASW area or in the deeper boring samples had PCBs above 1 mg/kg; therefore, no remediation was required. One of the six samples from the EADEC locations (EADEC-E with 12.0 mg/kg) and two of the EASE locations (EASESS-3 with 6.2 mg/kg and EASESS-7 with 1.09 mg/kg) had PCBs above the RSCO of 1 mg/kg. These areas were subsequently remediated as part of the 1997-1998 remediation as described later in this Section.

Table 5-1, formerly Table 4-18 from the 1993 Phase II Report, summarizes the TCL organic and TAL inorganic results from the three EADEC locations (EADEC-B, C, and E) where samples were collected for these locations. The 1994 TAGM 4046 RSCOs have been added to Table 5-1 for comparison. The results showed no TCL organics above the cleanup levels in samples



LEGEND

- Soil sample point
- ND** No detection

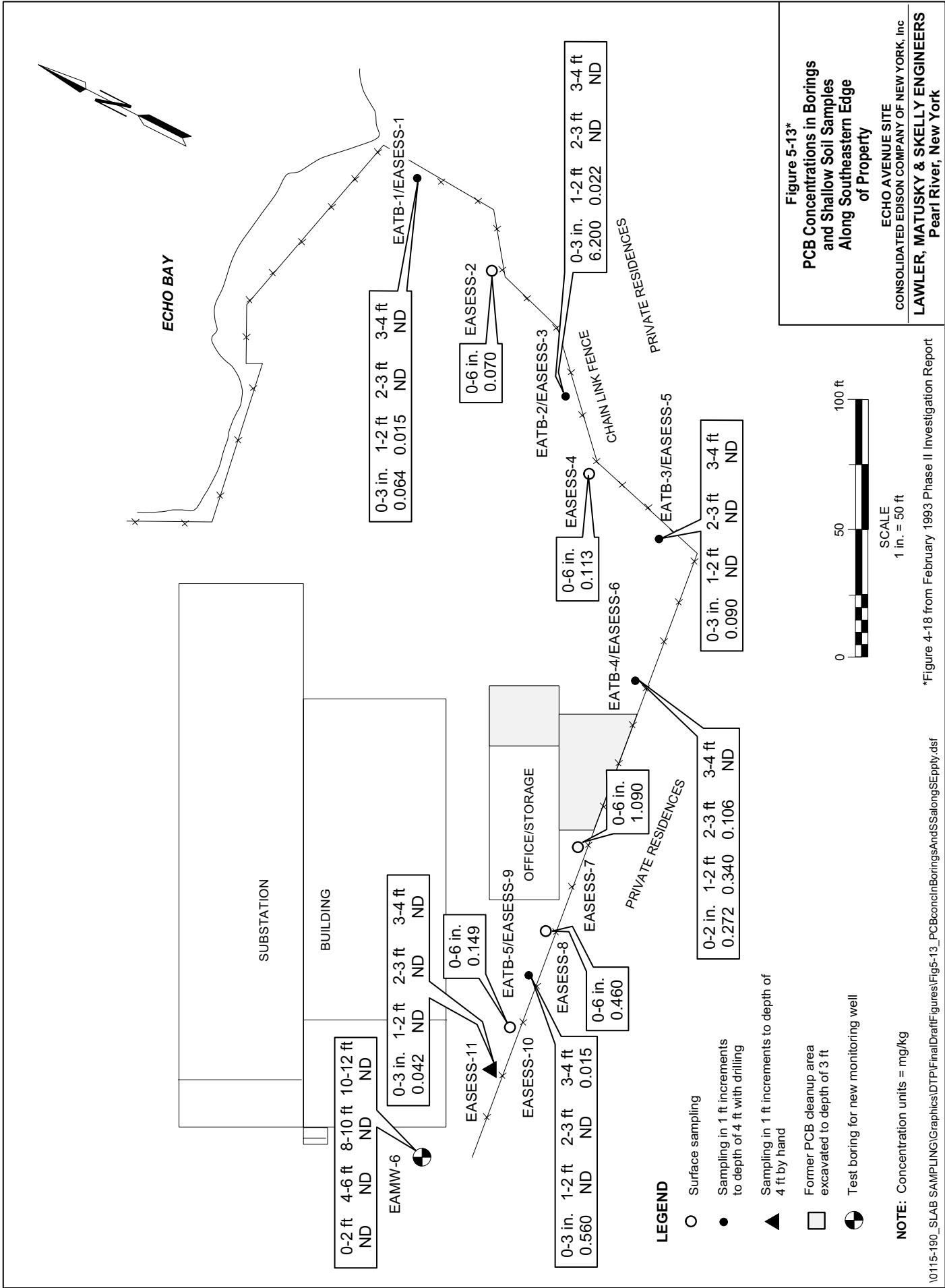
NOTE: Concentration units = mg/kg

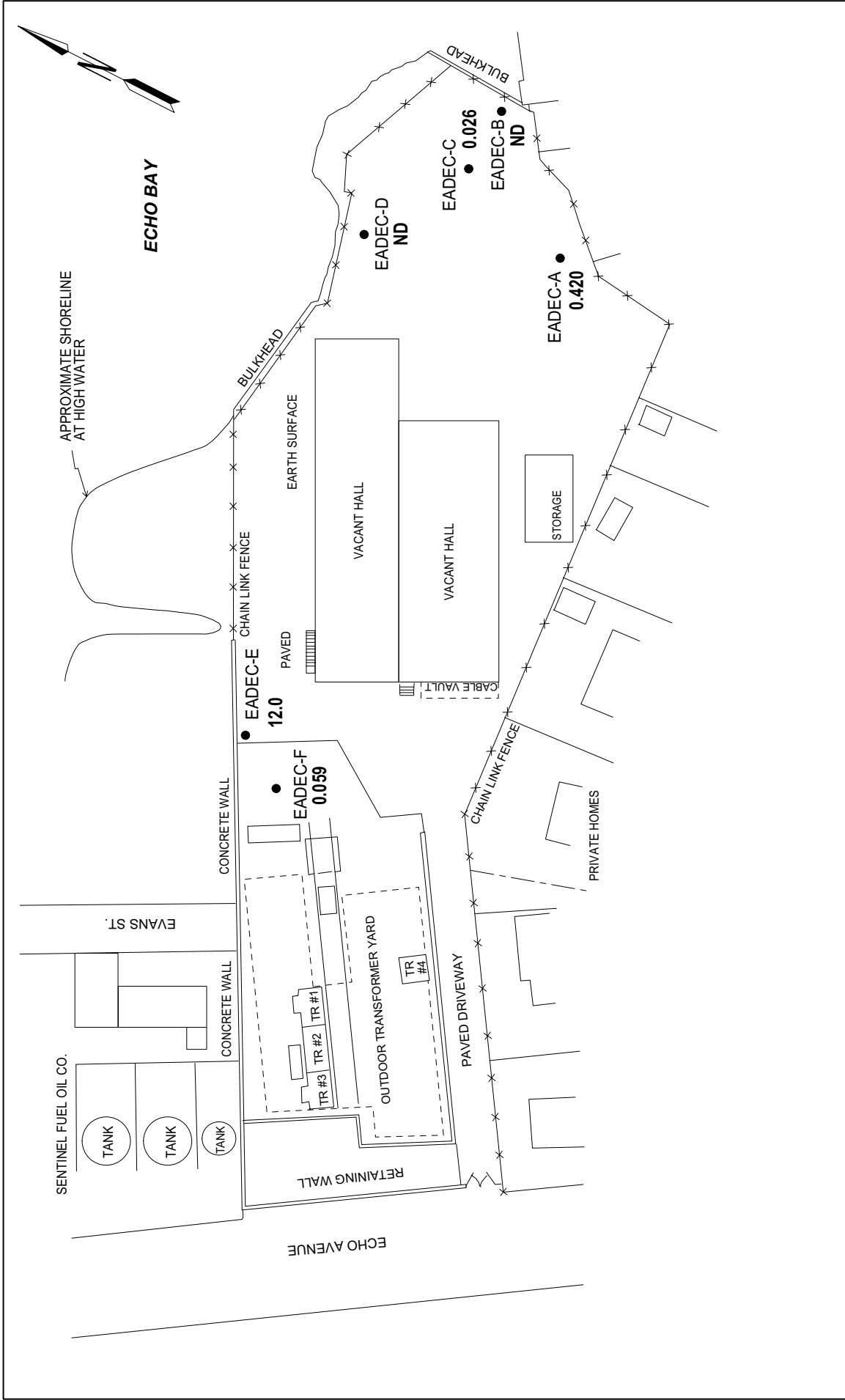
*Figure 4-20 from February 1993 Phase II Investigation Report

Figure 5-12*

PCB Concentrations Shallow Soil Samples at Southwestern End of Property

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

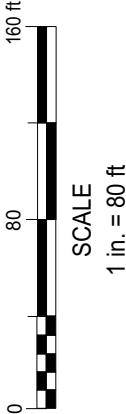




LEGEND

- Soil sample point
- ND No detection

NOTE: concentration units = mg/kg



*Figure 4-19 from February 1993 Phase II Investigation Report

TABLE 5-1 (Page 1 of 3)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SHALLOW SOIL SAMPLE DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EADEC-B (0-6 in.)	EADEC-D (0-6 in.)	EADEC-E (0-6 in.)	RE/DL EADEC-E (0-6 in.)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)	ND	ND	ND	ND		NA
SEMIVOLATILE ORGANICS (mg/kg)						
Naphthalene	ND	0.130j	ND	*	13	NA
2-Methylnaphthalene	ND	ND	0.240j	*	36.4	NA
Phenanthrene	ND	ND	0.66	*	50.0 ***	NA
Anthracene	ND	ND	0.220j	*	50.0 ***	NA
Fluoranthene	0.180j	0.120j	1.5	*	50.0 ***	NA
Pyrene	0.160j	0.110j	1.6	*	50.0 ***	NA
Benzo(a)anthracene	ND	ND	1.0	*	0.224 or MDL	NA
Chrysene	ND	ND	1.2	*	0.4	NA
bis(2-Ethylhexyl)phthalate	0.200j	0.250j	0.450j	*	50.0 ***	NA
Benzo(b)fluoranthene	ND	ND	1.1	*	1.1	NA
Benzo(k)fluoranthene	ND	ND	0.640	*	1.1	NA
Benzo(a)pyrene	ND	ND	1.0	*	0.061 or MDL	NA
Indeno(1,2,3-c,d)pyrene	ND	ND	ND	0.510j	3.2	NA
Benzo(g,h,i)perylene	ND	ND	ND	0.52	50.0 ***	NA
PESTICIDES/PCBs (mg/kg)						
Heptachlor epoxide	ND	ND	0.016px	ND	0.02	NA
Endosulfan I	ND	ND	0.036pxe	ND	0.9	NA
Dieldrin	ND	ND	0.10xe	ND	0.044	NA
4,4'-DDE	0.0018jp	ND	ND	ND	2.1	NA
Endrin	ND	ND	0.095px	ND	0.10	NA
Endosulfan II	ND	ND	0.098pxe	ND	0.9	NA
4,4'-DDD	ND	ND	0.021x	ND	2.9	NA

TABLE 5-1 (Page 2 of 3)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SHALLOW SOIL SAMPLE DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EADEC-B (0-6 in.)	EADEC-D (0-6 in.)	EADEC-E (0-6 in.)	REIDL EADEC-E (0-6 in.)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
PESTICIDES/PCBs (mg/kg) (Continued)						
4,4'-DDT	ND	ND	0.049px	ND	2.1	NA
Methoxychlor	ND	ND	0.073pxe	ND	***	NA
Endrin ketone	ND	ND	0.017jpx	ND	NA	NA
Endrin aldehyde	ND	ND	0.025pxe	ND	NA	NA
Endosulfan sulfate	ND	ND	0.075pxe	ND	1.0	NA
α-Chlordane	0.0016j	ND	ND	ND	0.54	NA
β-Chlordane	0.0019p	ND	0.043px	ND	0.54	NA
Aroclor 1254	ND	ND	8.2	12.0	1.0/10*	NA
Aroclor 1260	0.42	ND	ND	ND	1.0/10*	NA
METALS (mg/kg)						
Aluminum	4,060	8,800	7,460	*	SB	33,000
Antimony	4.0	20.3	8.0 B	*	SB	0.6 - 10 (n)
Arsenic	6.8 SA	91.5 SA	4.9	*	7.5 or SB	3.0 - 12.0 æ
Barium	161	216	124	*	300 or SB	15 - 600
Beryllium	2.4	1.5	1.2 B	*	0.16 or SB	0 - 1.75
Cadmium	1.4	1.7	7.6	*	1 or SB	0.1 - 1.0
Calcium	128,000	56,200	36,700	*	SB	130 - 35,000 æ
Chromium	9.8	25.6	85.4	*	10 or SB	1.5 - 40.0 æ
Cobalt	4.2	6.9 B	6.7 B	*	30 or SB	2.5 - 60.0 æ
Copper	16.7	101	160	*	25 or SB	1.0 - 50.0
Iron	8,630	15,300	14,600	*	2,000 or SB	2,000 - 550,000
Lead	105 N SA	279 N	2030 N	*	SB**	4.0 - 61 or 200 - 500**
Magnesium	61,700	28,100	7,780	*	SB	100 - 5,000
Manganese	152	375	332	*	SB	50 - 5,000
Mercury****	0.13 N	1.2 N	0.44 N	*	0.1	0.001 - 0.2

TABLE 5-1 (Page 3 of 3)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SHALLOW SOIL SAMPLE DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EADEC-B (0-6 in.)	EADEC-D (0-6 in.)	EADEC-E (0-6 in.)	REIDL EADEC-E (0-6 in.)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
METALS (mg/kg) (Continued)						
Nickel	8.5	14.7	34.3	*	13 or SB	0.5 - 25
Potassium	1,670	1,940	887 B	*	SB	8,500 - 43,000 æ
Selenium	ND W	ND	ND W	*	2 or SB	0.1 - 3.9
Silver	ND	ND	ND	*	SB	0.1 - 5.0 (n)
Sodium	98.0	190 B	200 B	*	SB	6,000 - 8,000
Thallium	ND	ND	ND	*	SB	0.1 - 0.8 (q)
Vanadium	13.2	29.0	35.9	*	150 or SB	1.0 - 300
Zinc	51.7	278	1,640	*	20 or SB	9.0 - 50
Cyanide	ND	ND	ND	*	****	N/A

Note : Numbers in bold exceed objectives

* - Not analyzed.

*** - As per TAGM #4046 total VOCs < 10 ppm, total SVOCs < 500 ppm, individual SVOCs < 50 ppm, and total Pesticides < 10 ppm

(b) - NYSDDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/84.

b - Found in associated blanks

* - 1.0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to

200 - 500 ppm in metropolitan or suburban areas or near highways

- Some forms of Cyanide are complex and stable while other forms are pH dependent and

hence are very unstable. Site-specific form(s) of Cyanide should be taken into

consideration when establishing soil cleanup objectives.

æ - New York State background concentration

(n) - Dragun, J. The Soil Chemistry of Hazardous Materials.

(q) - Bowen, H.J. Environmental Chemistry of the Elements.

B - Value is less than the contract-required detection limit but

greater than the instrument detection limit

ND - Not detected at analytical detection limit

SB - Site background

SA - Value determined by the method of standard addition

W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

N - Spike sample recovery is not within control limits.

**** - Mercury results are likely biased low as the MS recovered 30.8%; actual concentration may be greater than those reported.

RE - Re-extracted

DL - Diluted sample

EADDEC-B and D. Selected metals were above either the cleanup objective or the eastern USA background soil concentration range. The metals found in the shallow soil were attributed to the fill material used on the Site. NYSDEC did not request that either of these areas be remediated for the metals contamination. The sample from EADDEC-E had two SVOCs, one pesticide, and several metals, including lead, above the cleanup level in addition to and exceedance for PCBs. The EADDEC-E area was subsequently remediated as part of the 1997-1998 remediation, as described later in this Section.

In 1995, additional shallow soil samples were collected around three of the sample points (EASESS-3, EASESS-7, and, EADDEC-E) that had PCBs >1 mg/kg in the 1992 samples. These areas were subsequently remediated as part of the 1997-1998 remediation, as described later in this Section. At sample location EASESS-7C, a 2 in. layer of red-speckled soil/fill was encountered at 8 in. below grade. NYSDEC requested that a separate sample be collected of this material and analyzed for TCL organics and TAL inorganics. The data are provided in Table 5-1a, formerly Table 4-2 from the April 1996 Report on Sampling Required in Revised Addendum No. 2. The 1994 TAGM 4046 RSCOs have been added to Table 5-1a for comparison. The results showed six SVOCs, two pesticides, and several metals, including lead, above the cleanup level in addition to an exceedance for PCBs. The soil in this area was excavated to a depth of 3-5 ft as part of the 1997-1998 remediation, as described later in this Section. Since the contamination was located in the 8-10 in. layer, it was removed as part of the remediation.

Several borings were installed in 1994 by Con Edison; the sample from the 0-2 ft interval at one location (Boring B-3) showed PCBs of 2.2 mg/kg; additional samples were collected in 1995 to delineate the extent of the contamination at this location. This area, B-3, was also subsequently remediated as part of the 1997-1998 remediation, as described later in this Section

Figure 5-15, a composite figure of Figures 7-5a to g from the June 2001 Remediation Report, documents the PCB levels remaining at the EASESS-3 area after the remediation was completed in March 1998. The area was backfilled with certified clean backfill; the deeper areas were backfilled in lifts to ensure proper compaction. The area was backfilled to the original grade and covered with a layer of wood chips. Figure 5-15a shows only the data where PCBs are found at concentrations of greater than 1 mg/kg. Note that all the locations where PCBs were detected at greater than 1 mg/kg are at depths greater than two ft bgs.

Figure 5-16, a composite of Figures 7-6a to e taken from the June 2001 Remediation Report, shows the remaining PCBs after the remediation was completed at the EASESS-7 area in February 1998. Figure 5-16a shows only the data where PCBs are found at concentrations of greater than 1 mg/kg. Note that all the locations where PCBs were detected at greater than 1 mg/kg are at depths greater than two ft bgs.

TABLE 5-1a (Page 1 of 3)

Originally Table 4-2 (April 1996 Report on Sampling Required in Revised Addendum No. 2)

SOIL SAMPLE DATA SUMMARY (MAY 1995)

CON EDISON - ECHO AVENUE

PARAMETER	EASESS-7C (8-10 in.)	Trip Blank (µg/L)	FB-05 (µg/L)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)					
Methylene chloride	ND	1.0 bj	1.0 bj	0.1	NA
Acetone	ND	6.0 bj	8.0 bj	0.2	NA
SEMIVOLATILE ORGANICS (mg/kg)					
Naphthalene	2.4j	▲	ND	13	NA
2-Methylnaphthalene	2.2j	▲	ND	36.4	NA
Acenaphthylene	7.8j	▲	ND	NA	NA
Fluorene	4.3j	▲	ND	50.0***	NA
Phenanthrene	21	▲	ND	50.0 ***	NA
Anthracene	4.9j	▲	ND	50.0 ***	NA
Fluoranthene	13	▲	ND	50.0 ***	NA
Carbazole	2.8j	▲	ND	NA	NA
Pyrene	19	▲	ND	50.0 ***	NA
Benzo(a)anthracene	7.2j	▲	ND	0.224 or MDL	NA
Chrysene	9.2j	▲	ND	0.4	NA
Benzo(b)fluoranthene	4.7j	▲	ND	1.1	NA
Benzo(k)fluoranthene	8.7j	▲	ND	1.1	NA
Benzo(a)pyrene	5.9j	▲	ND	0.061 or MDL	NA
Indeno(1,2,3-c,d)pyrene	3.9j	▲	ND	3.2	NA
Benzo(g,h,i)perylene	3.7j	▲	ND	50.0 ***	NA

Note : Numbers in bold exceed objectives.

▲ : Not analyzed.

b : Found in associated blanks.

j : Estimated concentration; compound detected below quantitation limit.

ND : Not detected at analytical detection limit.

(b) : NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1994.

*** : As per TAGM 4046, total VOCs <10 ppm, total SVOCs < 500 ppm, individual SVOCs, 50 ppm, and total pesticides <10 ppm.

TABLE 5-1a (Page 2 of 3)

Originally Table 4-2 (April 1996 Report on Sampling Required in Revised Addendum No. 2)

SOIL SAMPLE DATA SUMMARY (MAY 1995)

CON EDISON - ECHO AVENUE

PARAMETER	ACID CLEANED		ACID EASESS-7C (8-10 in.)	ACID EASESS-7C (8-10 in.)	FB-05 (µg/L)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
	EASESS-7C (8-10 in.)	DL EASESS-7C (8-10 in.)					
PESTICIDES/PCBs (mg/kg)							
Heptachlor epoxide	0.12 ex	0.097 dpx	▲	▲	ND	0.02	NA
Endosulfan I	0.025 px	0.030 dpx	▲	▲	ND	0.9	NA
Aldrin	0.045 ep	0.048 dp	▲	▲	ND	0.041	NA
4,4'-DDE	0.019 px	ND	▲	▲	ND	2.1	NA
Endrin	0.0053 px	ND	▲	▲	ND	0.10	NA
Endosulfan II	0.078 epx	0.096 dpx	▲	▲	ND	0.9	NA
4,4'-DDD	ND	ND	▲	▲	ND	2.9	NA
4,4'-DDT	0.013 px	ND	▲	▲	ND	2.1	NA
Methoxychlor	ND	ND	▲	▲	ND	***	NA
Endrin aldehyde	0.083 epx	0.092 dpx	▲	▲	ND	NA	NA
Endosulfan sulfate	0.011 px	ND	▲	▲	ND	1.0	NA
Aroclor 1254	2.6 e	2.5 d	1.3 e	1.7 d	ND	1.0/10*	NA
Aroclor 1260	ND y	ND y	0.55	0.58 d	ND	1.0/10*	NA

Note : Numbers in bold exceed objectives.

▲ : Not analyzed.

d : Concentration recovered from diluted sample.

e : Estimated concentration: exceeds GC/ECD calibration range.

p : Pesticide/Aroclor target analyte has >25% difference for detected concentrations between the two GC columns.

x : Pesticide detected partially or totally due to the presence of Aroclors.

y : Potentially present but masked by interferences.

DL : Diluted sample analysis.

N : Not detected at analytical detection limit.

*** : As per TAGM 4046, total VOCs < 10 ppm, total SVOCs < 500 ppm, individual SVOCs < 50 ppm, and total pesticides < 10 ppm.

TABLE 5-1a (Page 3 of 3)

Originally Table 4-2 (April 1996 Report on Sampling Required in Revised Addendum No. 2)

SOIL SAMPLE DATA SUMMARY (MAY 1995)

CON EDISON - ECHO AVENUE

PARAMETER	EASESS-7C (8-10 in.)	FB-J5 (µg/L)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
METALS (mg/kg)				
Aluminum	14,900 R	40 B	SB	33,000
Antimony	1.1 BN	ND	SB	0.6 - 10 (n)
Arsenic	16.0	ND	7.5 or SB	3.0 - 12.0 æ
Barium	1270 R	1.0 B	300 or SB	15 - 600
Beryllium	0.81 B	0.030 B	0.16 or SB	0 - 1.75
Cadmium	2.1	ND	1 or SB	0.1 - 1.0
Calcium	4,100 R	178 B	SB	130 - 35,000 æ
Chromium	42 R	ND	10 or SB	1.5 - 40.0 æ
Cobalt	15.0	ND	30 or SB	2.5 - 60.0 æ
Copper	ND J	ND J	25 or SB	1.0 - 50.0
Iron	22,700	17 B	2,000 or SB	2,000 - 550,000
Lead	1,550.0	1.3 B	SB**	4.0 - 61 or 200 - 500**
Magnesium	3,770	40 B	SB	100 - 5,000
Manganese	376	0.67 B	SB	50 - 5,000
Mercury****	1.0	ND	0.1	0.001 - 0.2
Nickel	28.0	ND	13 or SB	0.5 - 25
Potassium	2,060 E	ND	SB	8,500 - 43,000 æ
Selenium	2.2	ND	2 or SB	0.1 - 3.9
Silver	ND	ND	SB	0.1 - 5.0 (n)
Sodium	192 B	ND	SB	6,000 - 8,000
Thallium	1.3 B	ND	SB	0.1 - 0.8 (q)
Vanadium	48.0	ND	150 or SB	1.0 - 300
Zinc	379 R	5.9 B	20 or SB	9.0 - 50
Cyanide	ND	ND	****	N/A

Note : Numbers in bold exceed objectives.

(b) - NYSDC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

** - Background levels for lead range from 4 - 61 ppm in undeveloped, rural areas to 200 - 500 ppm in metropolitan or suburban areas or near highways.

**** - Some forms of Cyanide are complex and stable while other forms are pH dependent and hence are very unstable. Site-specific form(s) of Cyanide should be taken into consideration when establishing soil cleanup objectives.

æ - New York State background concentration

(n) - Dragun, J. The Soil Chemistry of Hazardous Materials

ND - Not detected at analytical detection limit

N - Spike sample recovery is not within control limits.

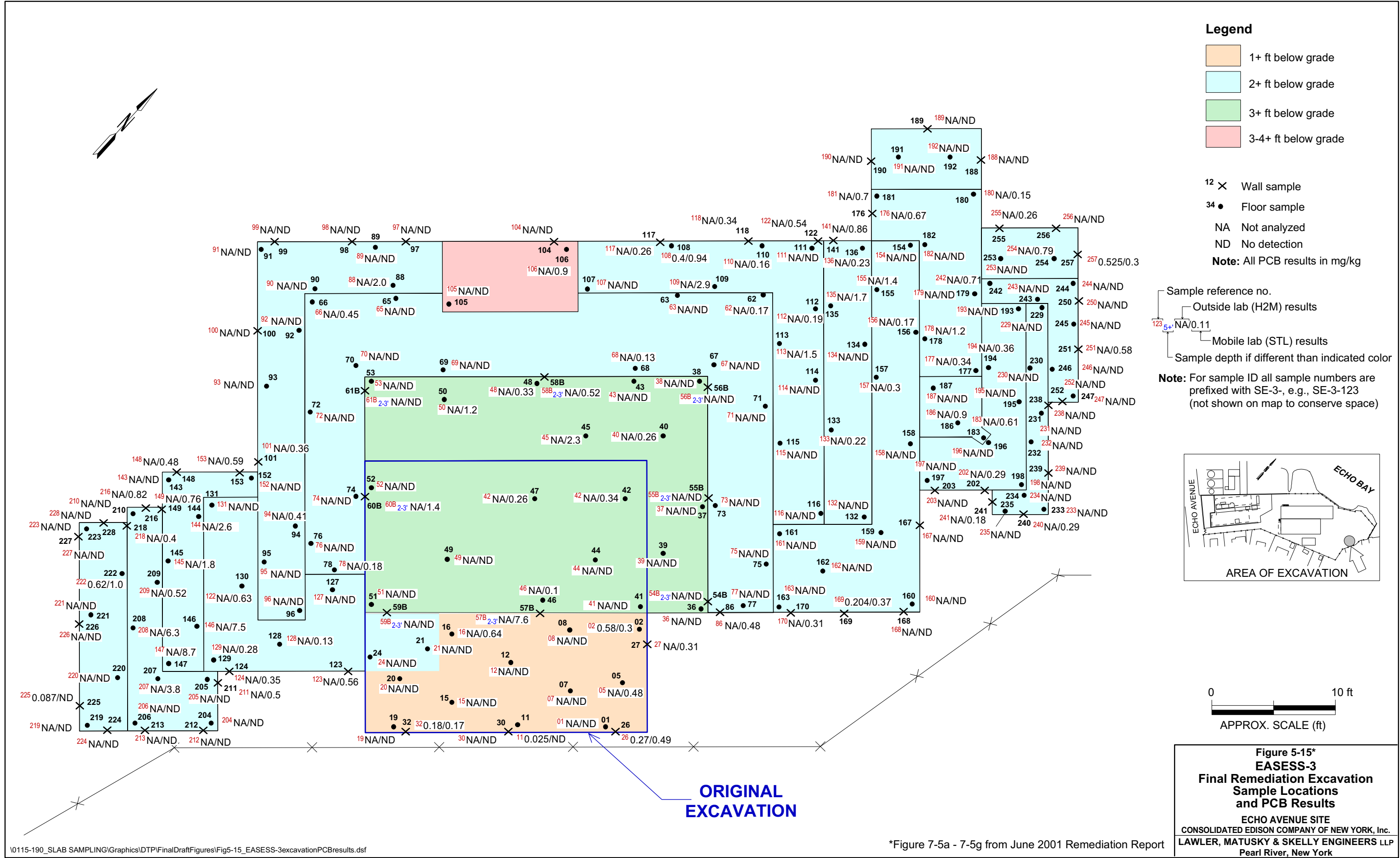
B - Value is less than the contract-required detection limit but greater than the instrument detection limit

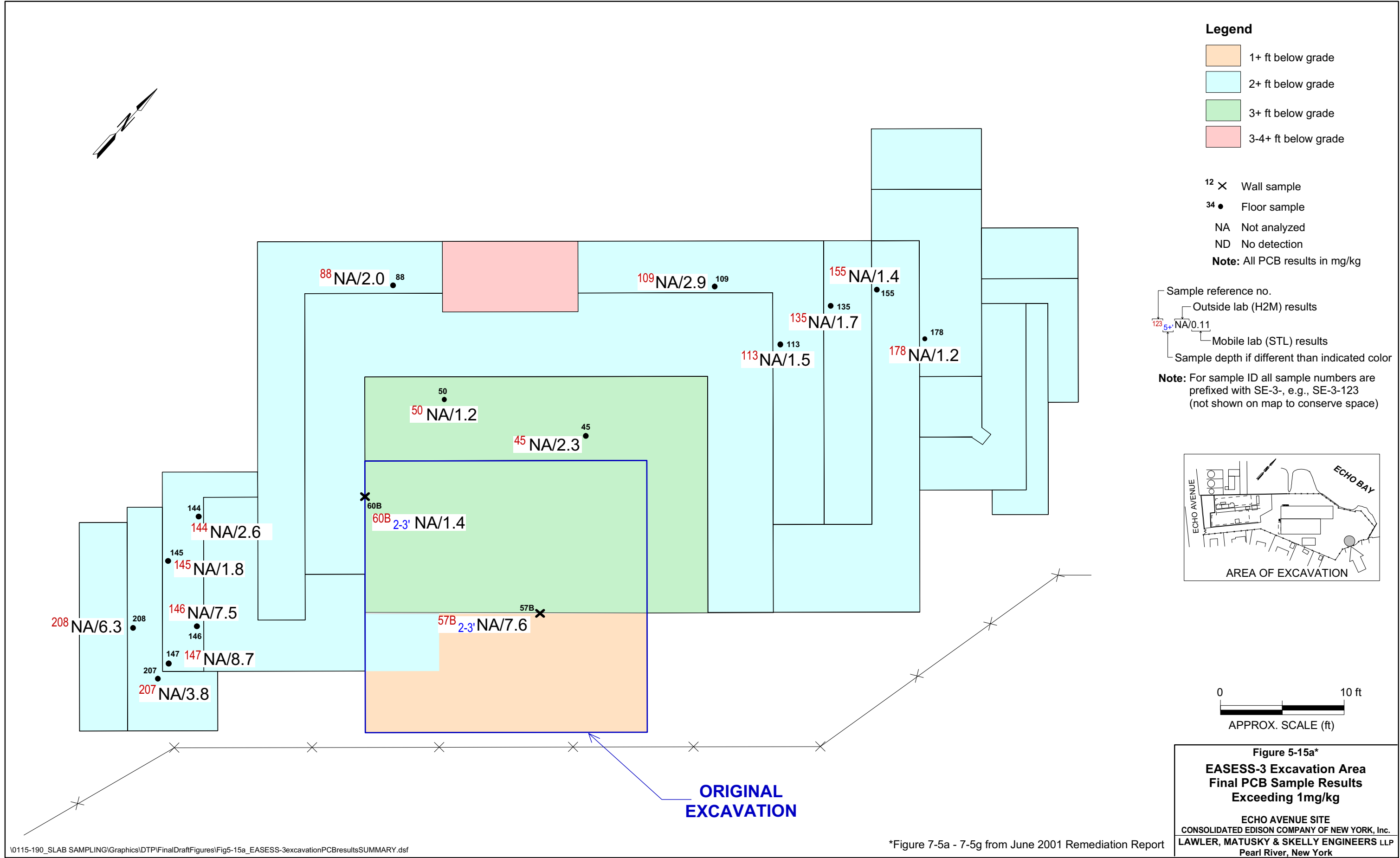
SB - Site background

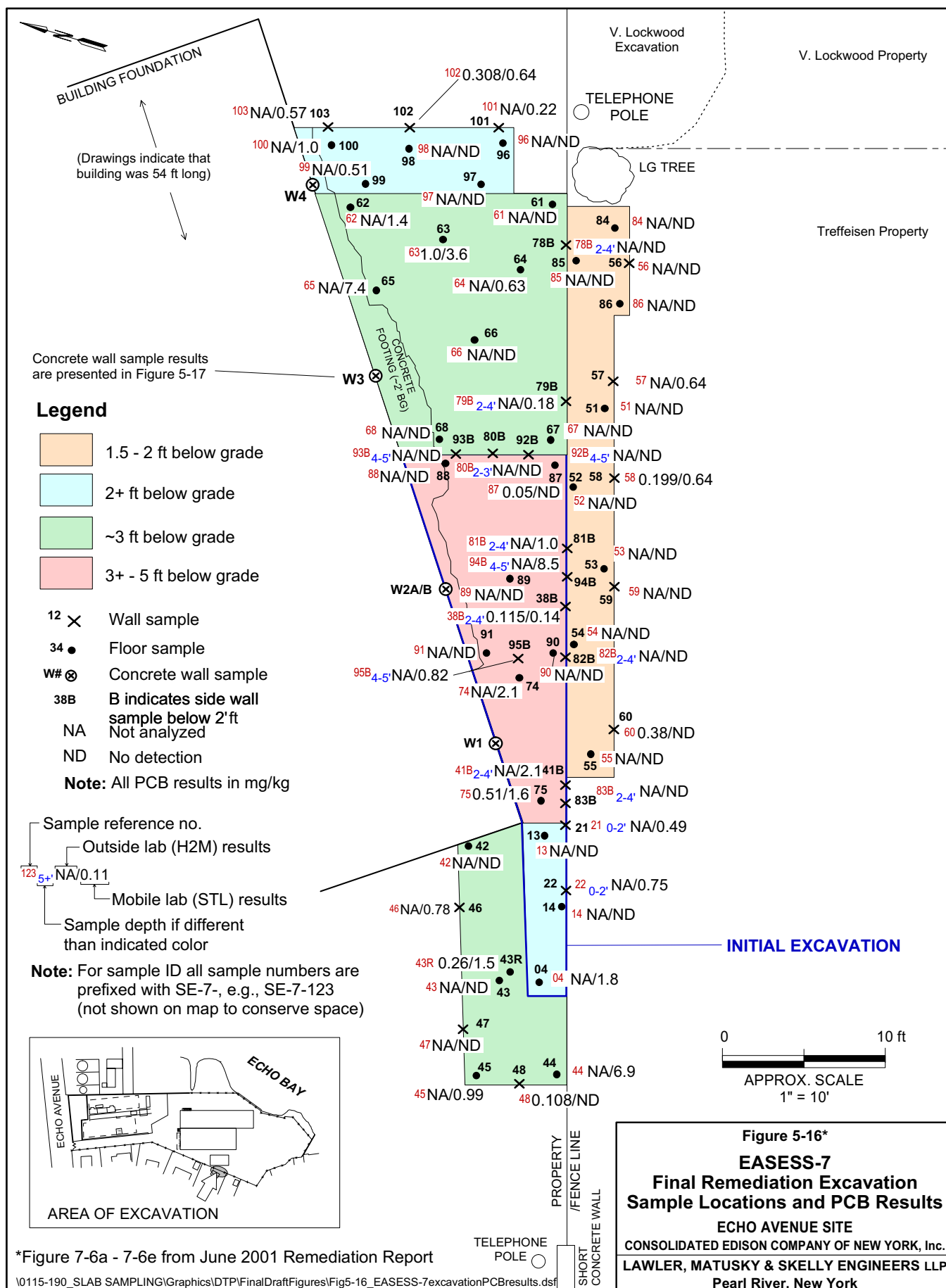
(q) - Bowan, H. J. Environmental Chemistry of the Elements.

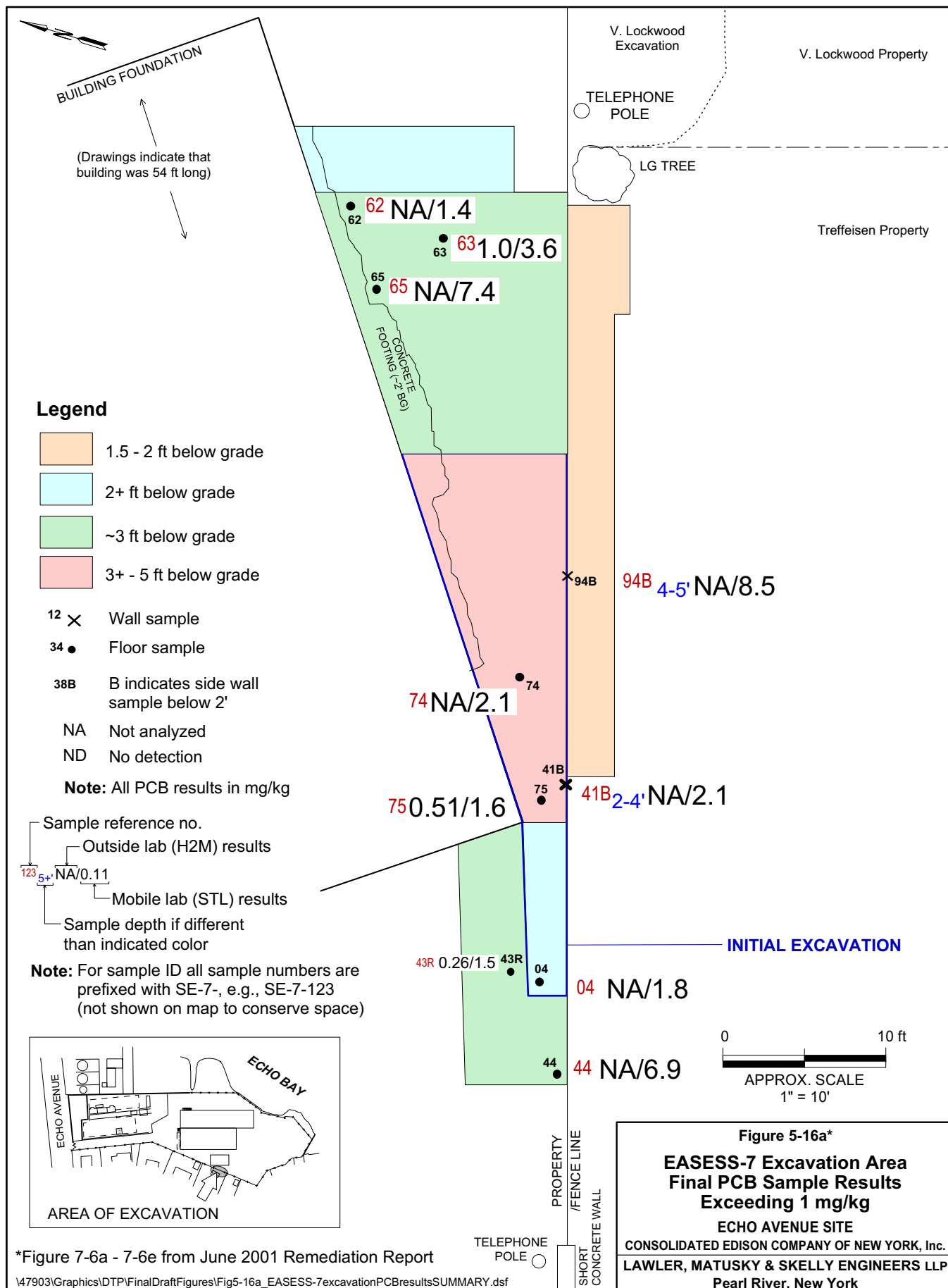
R - Duplicate analysis not within control limits

J - Results rejected, based on QC evaluation









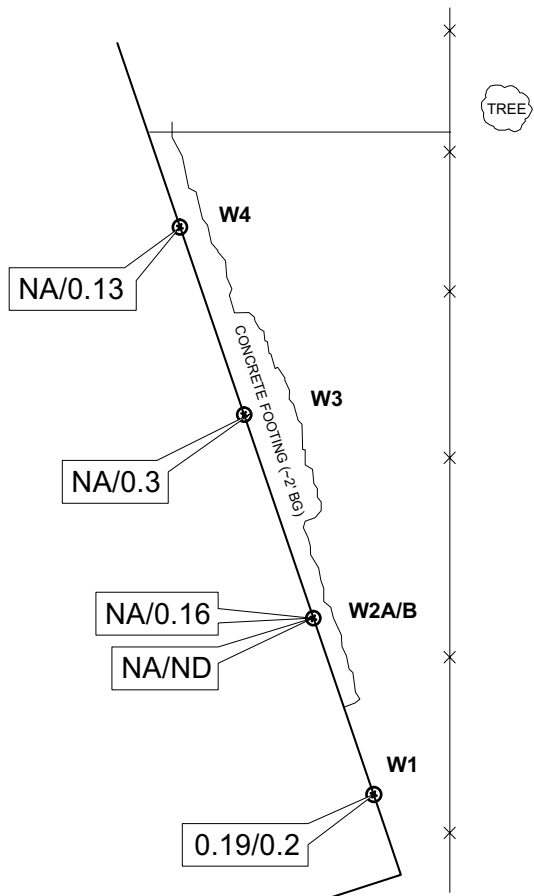
The excavated area on the east end met the limits of the V. Lockwood excavation and extended onto the Treffeisen property along the fence line to the south. At the request of NYSDEC, concrete samples were collected from the former office building foundation wall on the northwest side of the excavation; the concrete sample results as shown on Figure 5-17, formerly Figure 7-7 from the June 2001 Remediation Report, were all less than 1 mg/kg. Note that the office building had been demolished and the first floor slab removed by Con Edison in 1995. After the final results were received, and the results verified that the cleanup objectives were met, the area was backfilled with clean certified backfill to the original grade. The bottom of the deep excavation area (excavated to 5 ft deep) was backfilled with clean crushed stone to ensure proper compaction would be obtained. The Treffeisen side of the property line was replanted with shrubs and ground cover, and the Echo Avenue site was covered with wood chips.

The EADEC-E area was remediated from December 1997 to January 1998. Figure 5-18, a composite of Figures 7-8a and b taken from the June 2001 Remediation Report, document the remaining levels of PCBs from this area. Figure 5-18a shows only the data where PCBs are found at concentrations of greater than 1 mg/kg. Note that all the locations where PCBs were detected at greater than 1 mg/kg are at depths greater than two ft bgs.

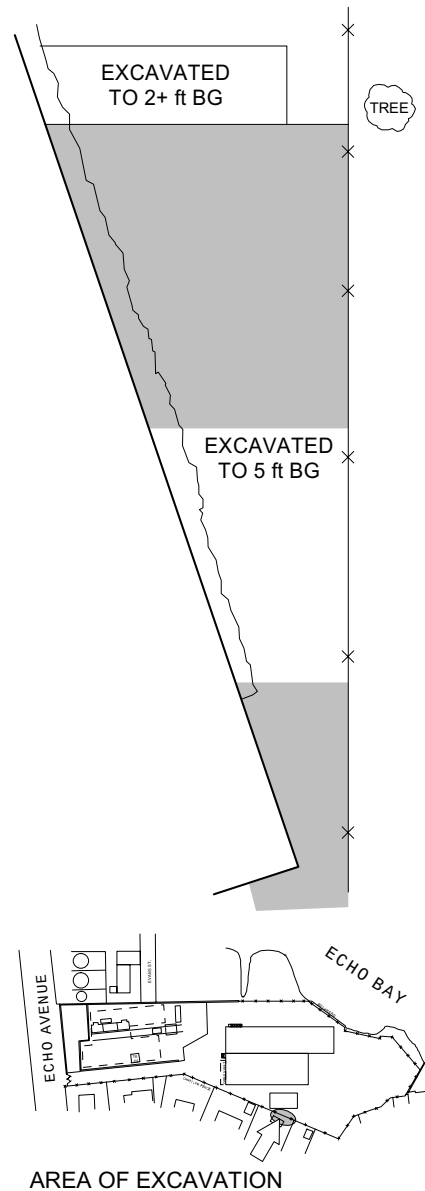
Sump EASP-01, which was also located in the area, was removed. As described above in Section 4.2, sample EA-25 was also collected from this area in 1998 and analyzed for TCL organics and TAL inorganics. The results, provided in Table 4-2 of this document, showed TAGM 4046 SVOC and metals exceedances, most likely due to the presence of a substance similar to dielectric fluid, which was probably the source of the contamination found in 1992 at the same location. After the results were reviewed and found acceptable by the NYSDEC, the area was backfilled with certified clean fill and covered with wood chips. This area was further excavated down to a depth of six feet as part of the 2003 remediation of the transformer yard area. Figure 5-19, formerly Figure 5-5 from the July 2003 Remediation Report Addendum, shows the final PCB concentrations from the transformer yard excavation. Samples FC-F25, FC-W8 and FC-W8a were taken in the vicinity of the EADEC-E remediation, and all had no detectable PCBs.

Area B-3 was remediated as a result of a sample collected from a boring installed in April 1994 that contained 2.2 mg/kg of PCBs. Figure 5-20, formerly Figure 7-9 from the June 2001 Remediation Report, shows the PCB contamination remaining after the remediation of this area was completed in December 1997. The location of the original boring is also shown on the figure. The area was backfilled with certified clean fill to the original grade and covered with wood chips. Figure 5-20a shows only the data where PCBs are found at concentrations of greater

EASESS-7 (Concrete Samples From Building Foundation)



EASESS-7 (East End Extension and Deep Pipe Area)



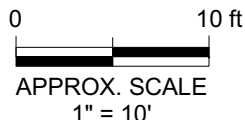
- Floor sample
- × Wall sample
- ⊙ Concrete wall sample
- A** Designates wall sample from above 2 ft
- B** Designates wall sample from below 2 ft

0.27/0.44

Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

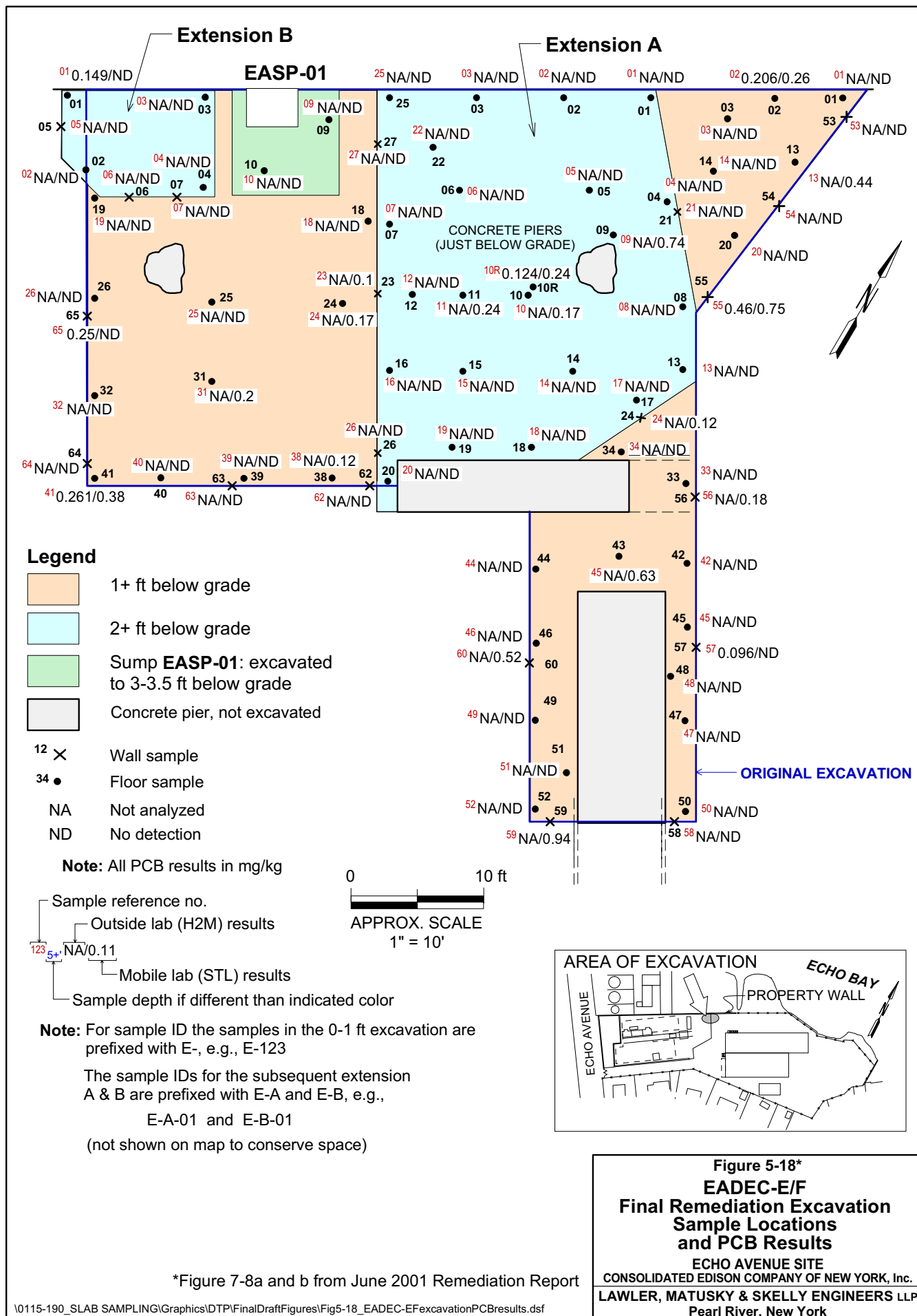
NA Not analyzed
ND Not detected at analytical detection limit

NOTE: For sample ID all sample numbers are prefixed with SE-7- e.g. SE-7-21



*Figure 7-7 from June 2001 Remediation Report

Figure 5-17
EASESS-7
Final Remediation Excavation
Concrete Sample Locations
and PCB Results
ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



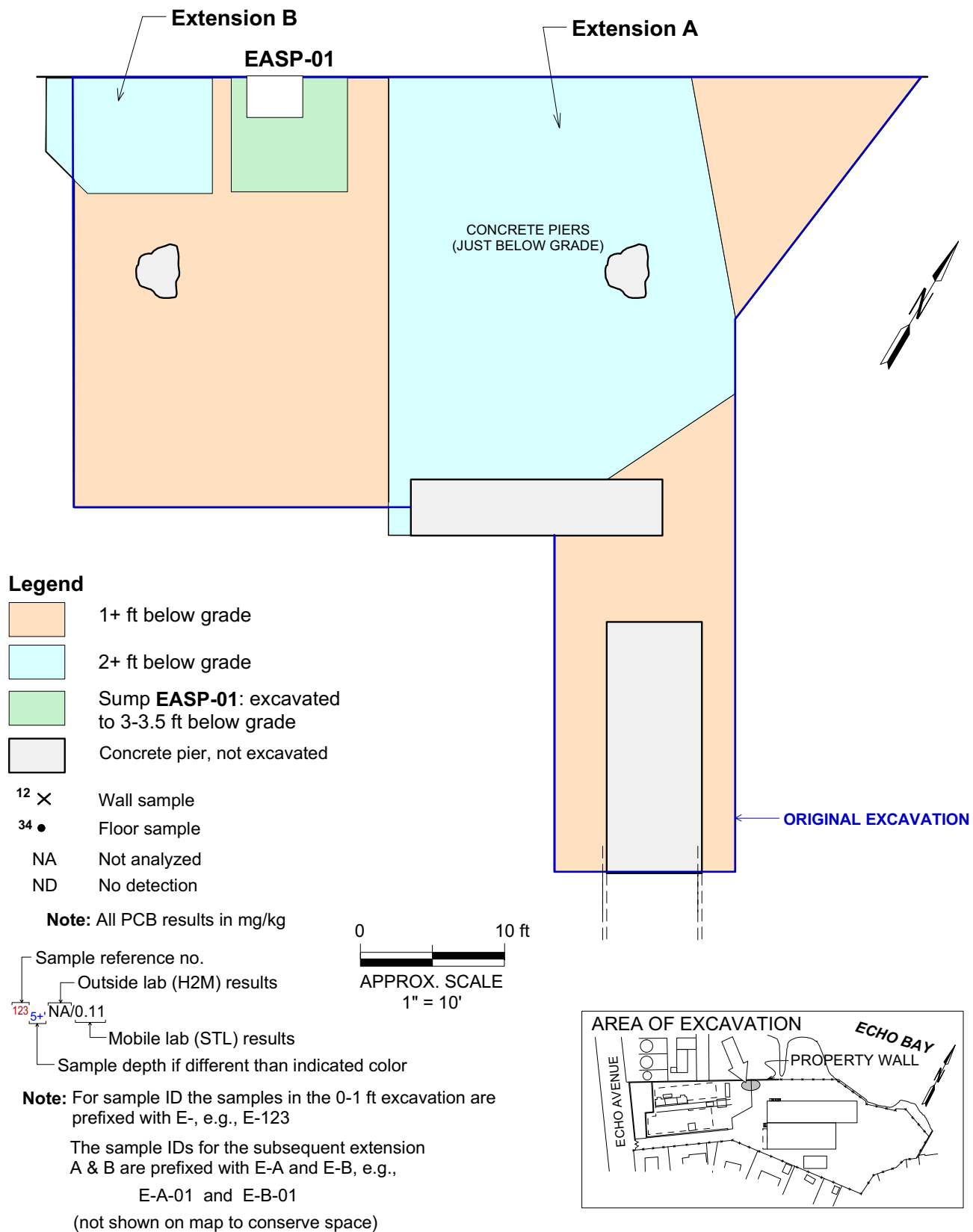
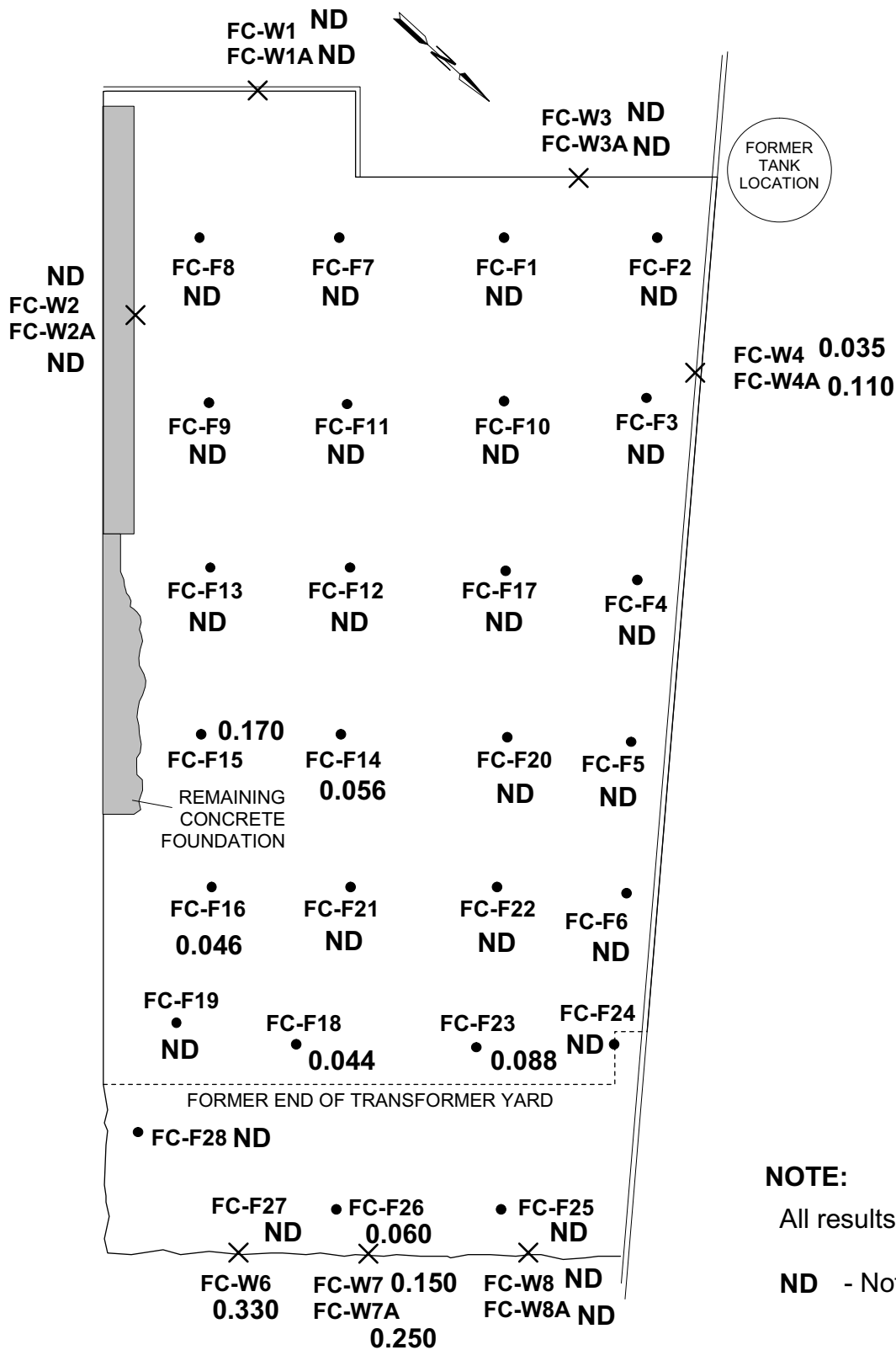


Figure 5-18a*

**EADEC-E/F Excavation Area
Final PCB Sample Results
Exceeding 1 mg/kg**

ECHO AVENUE SITE
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Pearl River, New York

*Figure 7-8a and b from June 2001 Remediation Report



NOTE:

All results are in mg/kg

ND - Not detected

LEGEND

- ✕ Wall sample
- FC-W# 2 ft sample depth
- FC-W#A > 2 ft sample depth
- Floor sample
- FC-F#

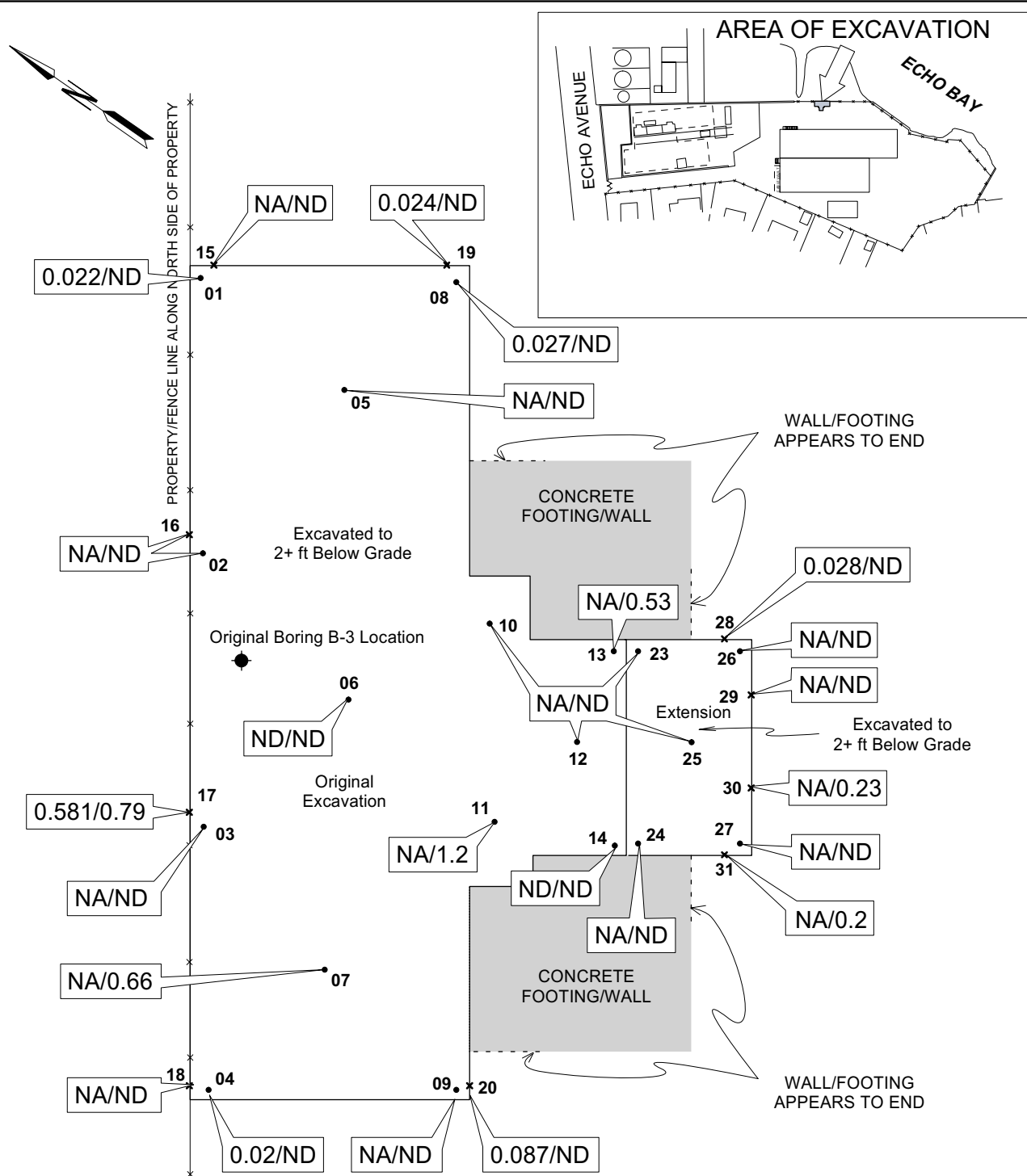
*Figure 5-5 from July 2003 Remediation Report Addendum

\\0115-190_SLAB SAMPLING\Graphics\DTPI\FinalDraftFigures\Fig5-19_TransformerYardPCBResults.dsf

Figure 5-19*

**Transformer Yard
Post-Excavation Confirmatory
PCB Soil Sample Results**

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LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



Legend

- Floor sample
- × Wall sample
- B Side wall sample below 2 ft

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed
ND Not detected at
analytical detection limit

0 5 ft
APPROX. SCALE
1" = 5'

NOTE:

For sample ID all sample numbers
are prefixed with B-3- e.g. B-3-01

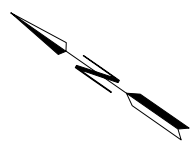
Figure 5-20*

B-3

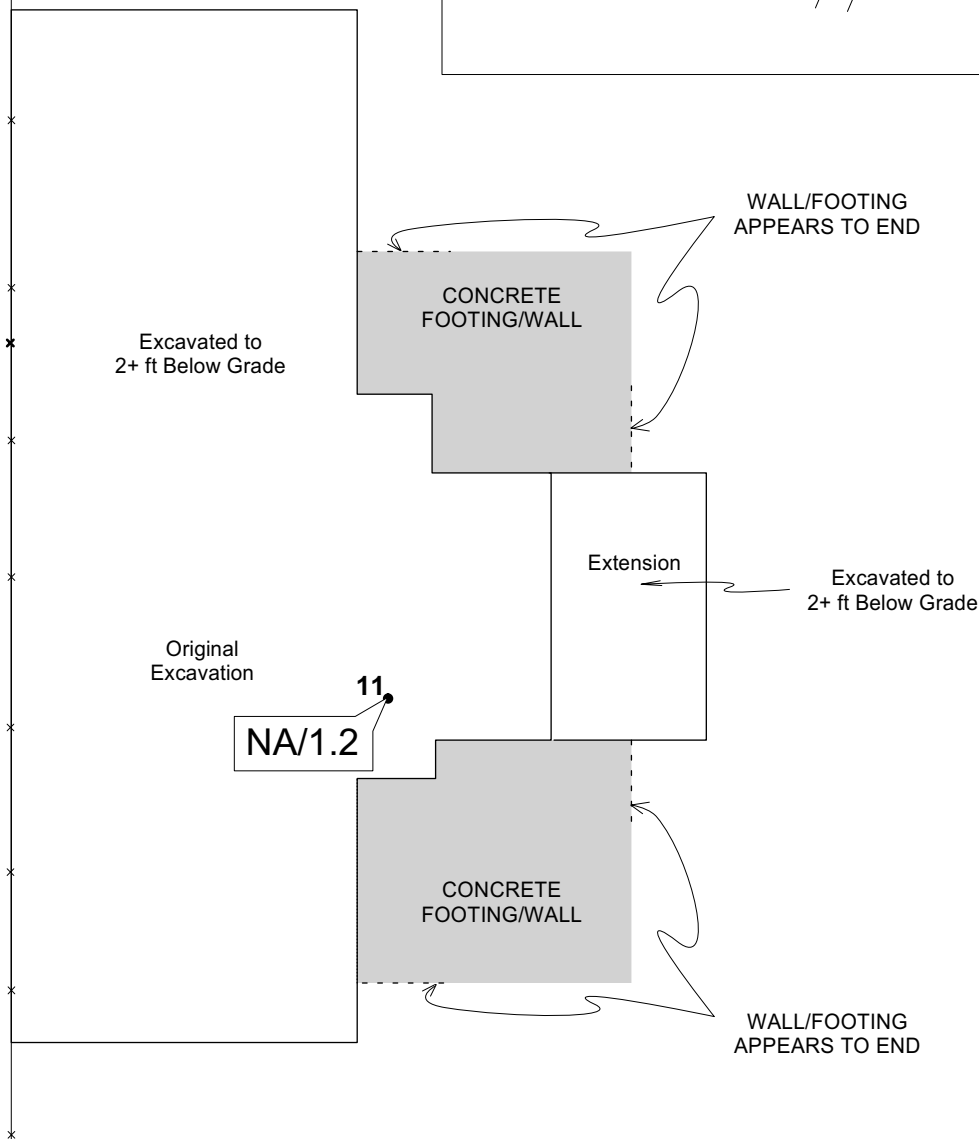
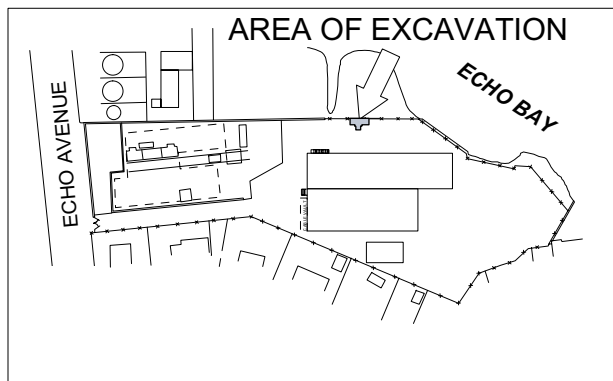
Final Remediation Excavation Sample Locations and PCB Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 7-9 from June 2001 Remediation Report



PROPERTY/FENCE LINE ALONG NORTH SIDE OF PROPERTY



Legend

- Floor sample
- × Wall sample
- B Side wall sample below 2 ft

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed
ND Not detected at
analytical detection limit

0 5 ft
APPROX. SCALE
1" = 5'

NOTE:

For sample ID all sample numbers
are prefixed with B-3- e.g. B-3-01

Figure 5-20a*
B-3 Excavation Area
Final PCB Sample Results
Exceeding 1 mg/kg

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 7-9 from June 2001 Remediation Report

than 1 mg/kg. Note that all the locations where PCBS were detected at greater than 1 mg/kg are at depths greater than two ft bgs.

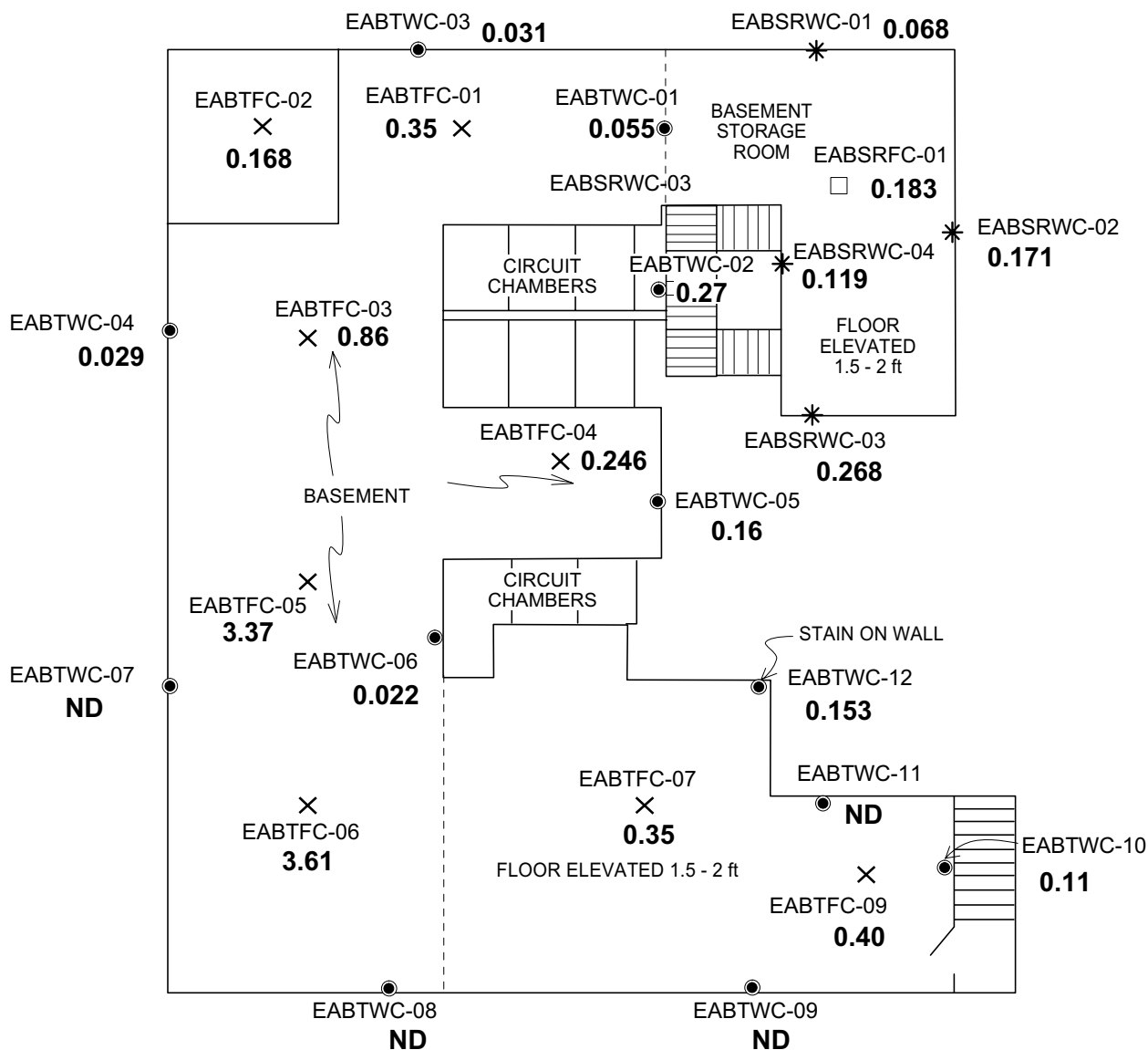
5.1.3 On-Site Soils beneath the Substation Building Slabs

The substation building was demolished down to the slab by Con Edison in 1995. Prior to demolition, the basement area, at the western end of the building (see Figure 1-2), was dewatered and concrete chip samples were collected from the basement and basement storage area. These results are provided on Figure 5-21, formerly Figure 4-1 from the *Second Report on Sampling Required in Revised Addendum No. 2 Final Work Plan* (the "April 1996 Second Report") dated April 1996 (Ref. 10, Appendix A). The concrete in the basement contained low levels of PCBs with two samples having PCBs of 3.37 and 3.61 mg/kg; all other samples were less than 1 mg/kg. The NYSDEC determined that the area did not require additional remediation and authorized Con Edison to proceed with backfilling the basement with debris from the building demolition.

The South Hall substation slab was removed as part of the 1999-2000 remediation. Catch basin CB-05, the tile drainpipes from catch basins CB-04 and CB-05, and the drainpipe that ran along the outside of the foundation wall on the south side were all removed as part of this remediation effort. Figure 5-22, formerly Figure 6-61 from the June 2001 Remediation Report, shows the locations of the catch basins and drainpipes in both the North and South Halls of the substation building. Confirmatory PCB soil samples were collected to verify that the PCB cleanup objectives had been met. These results are shown on Figure 5-23, formerly Figure 7-21a from the June 2001 Remediation Report.

Figure 5-23a shows only the data where PCBs are found at concentrations of greater than 1 mg/kg. Two locations, SH-14B, collected at 1.75 ft bgs, and SH-08W, collected between 0.5 and 2.5 ft bgs, have > 1 mg/kg of total PCBs. The sample results shown on Figure 5-23a were analyzed by the mobile laboratory and were originally reported as <1 mg/kg; however, after an internal review by the mobile laboratory, the results were changed to those reported on Figure 5-23a. The substation area had already been backfilled by the time the change was reported. NYSDEC was informed of this issue in a telephone conversation on January 5, 2000; Con Edison was directed by NYSDEC that since the exceedances were negligible, no further remediation or sampling was warranted in these two areas. This was documented in a letter from Con Edison to NYSDEC (Ref. 31, Appendix A, this report).

Additional samples were collected from two concrete structures near the common foundation wall between the two halls that may have been related to the intake and discharge of water from the bay when the facility was a coal-fired electric generating station. These sample results are shown on Figure 5-24, formerly Figure 7-23 from the June 2001 Remediation Report. There



LEGEND

- Basement core wall samples
- * Basement storage room core wall samples
- X Basement core floor samples
- Basement storage room core floor sample

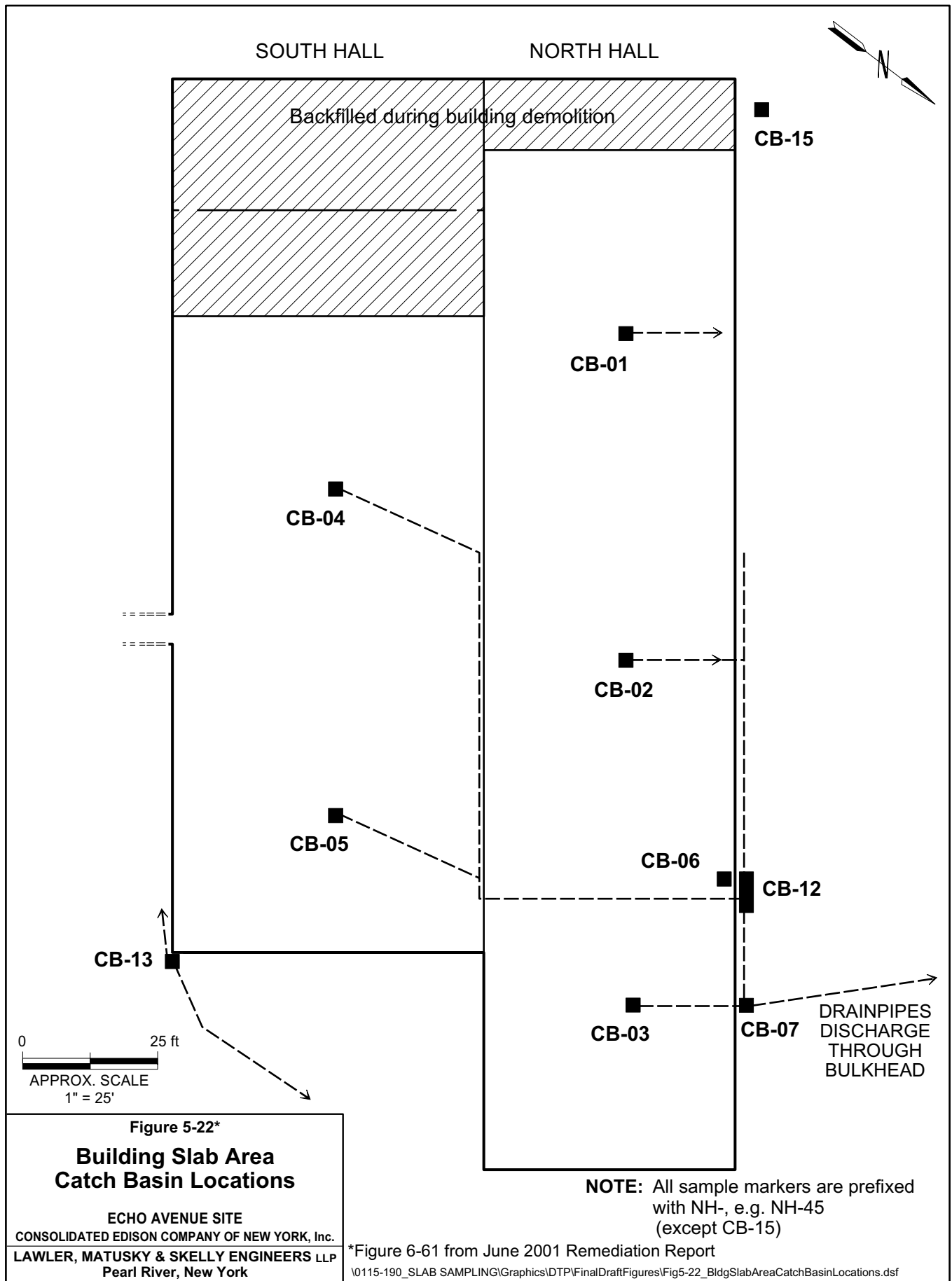
NOTE: All results are in mg/kg

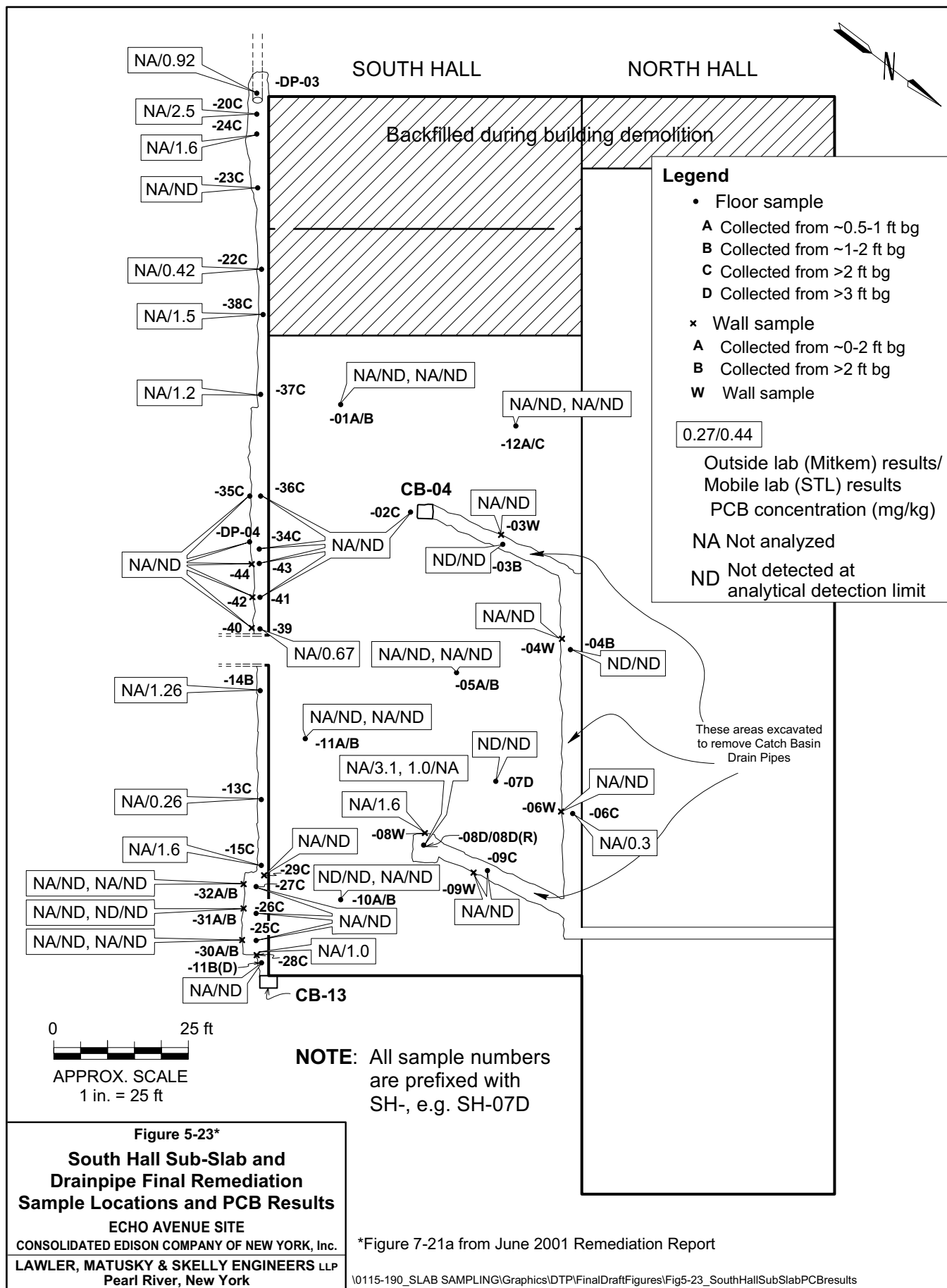
0 10 ft
SCALE
1 in. = 10 ft

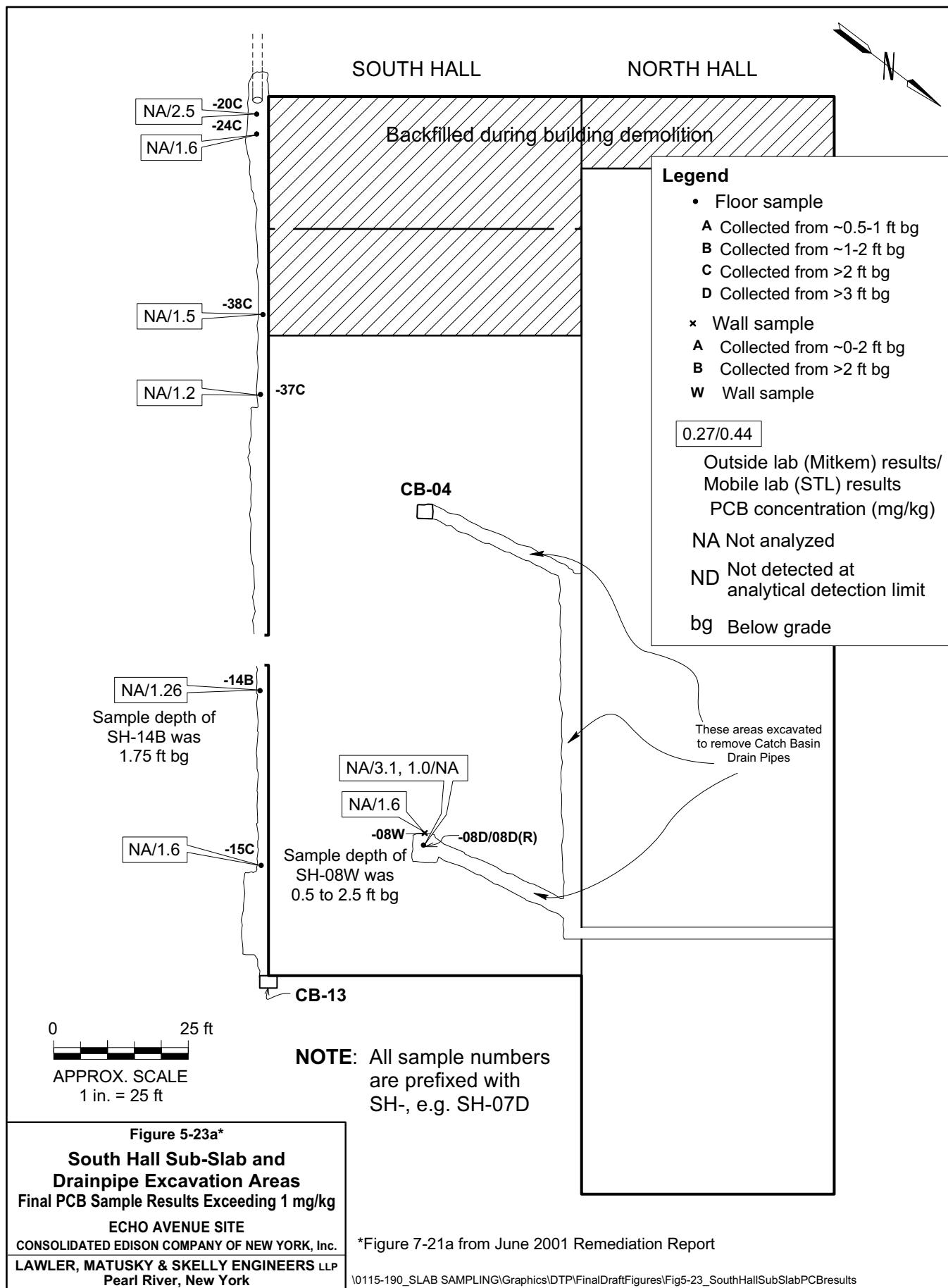
Figure 5-21*
**PCB Concentrations in Basement
and Basement Storage Room
Concrete Core Samples**

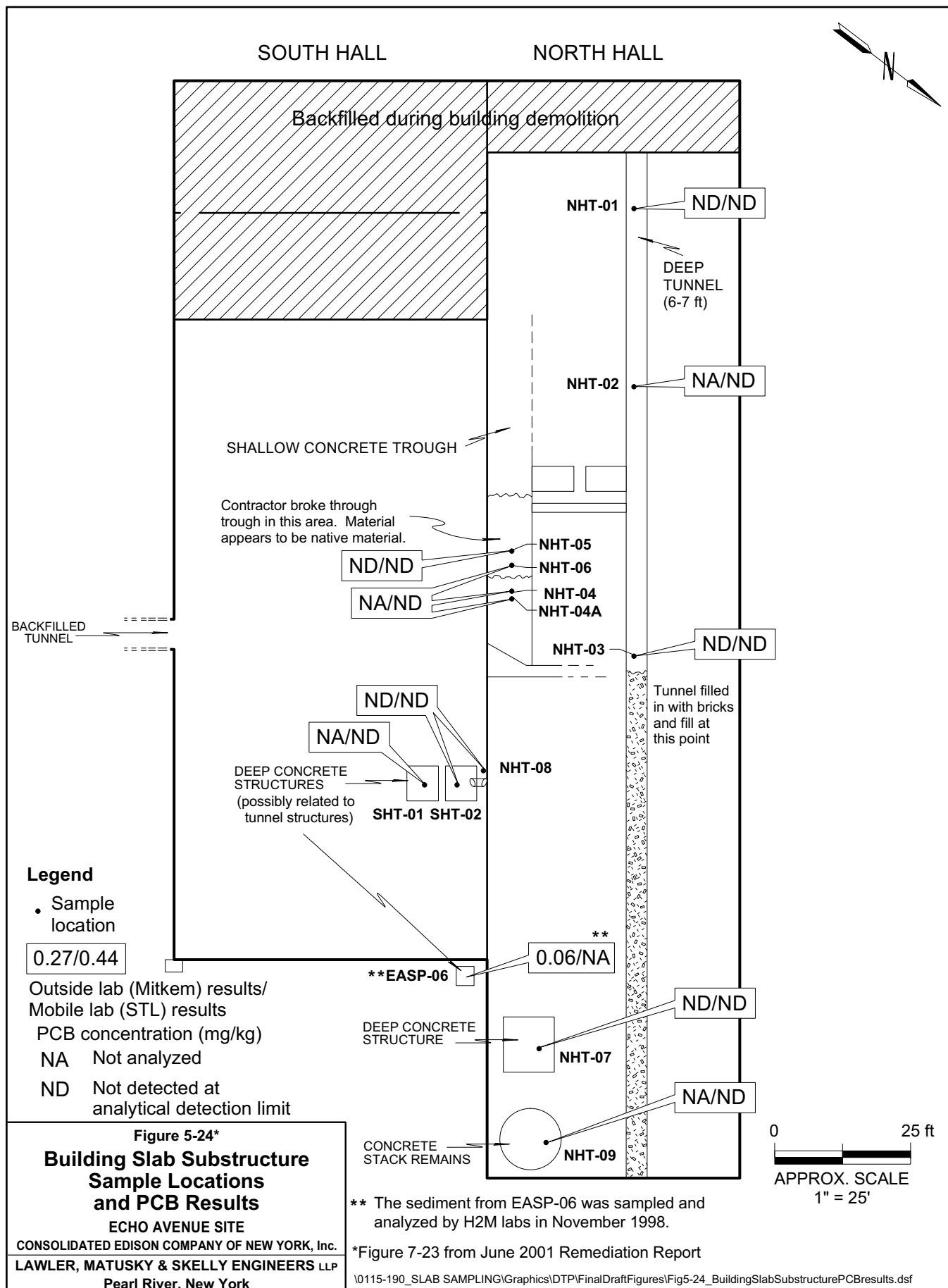
ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 4-1 from April 1996 Second Report









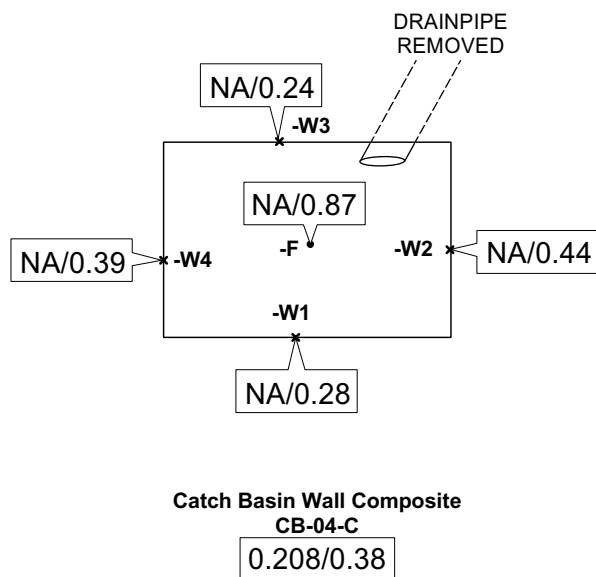
appeared to be a series of shallow brick sluiceways under the slab of the South Hall. A number of gate-type valves were found in these shallow brick channels. Some of the confirmatory PCB samples were collected from material in these sluiceways to ensure they were not contaminated with PCBs (see Figure 5-24 of this Report).

In January 2000, Con Edison received approval from NYSDEC to backfill the South Hall building slab area with clean certified fill. At the time, CB-04 and CB-13 were allowed to remain in place. Figure 5-25, formerly Figure 7-21b from the June 2001 Remediation Report, shows the PCB concentrations in the concrete from these two catch basins. In 2002-2003, CB-13, which consisted of two catch basins adjacent to each other, and the drainpipe were removed. The results of the confirmatory PCB concentrations are provided on Figure 5-26, previously Figure 5-10 from the July 2003 Remediation Report Addendum. CB-04 remains in place.

The North Hall substation slab was also removed as part of the 1999-2000 remediation. In addition, catch basins CB-01, CB-02, CB-03, CB-07, CB-12, and CB-15, the drainpipes from CB-01, CB-02, CB-03, and CB-15, the drainpipe that ran from CB-04 and CB-05 under the North Hall slab to CB-12, and the drainpipe between CB-07 and CB-12 along the outside of the northern foundation wall were all removed. A concrete trough along the inside of the north wall foundation in the northwest corner area was also removed. CB-06 and a concrete pit near CB-15 were allowed to remain in place. The confirmatory PCB samples from the North Hall slab, catch basins and drainpipe removal are shown on Figure 5-27a to d, formerly Figures 7-22a to 7-22d from the June 2001 Remediation Report. Figures 5-27a1 and 5-27b1 show only the data where PCBs are found at concentrations of greater than 1 mg/kg. Note that all the locations where PCBs were detected at greater than 1 mg/kg are at depths greater than two ft bgs.

A deep concrete tunnel/trough was discovered along the centerline of the building slab of the North Hall. The western half had an intact roof and the tunnel area was filled with a cindery-ashy material. The eastern half was exposed and was filled with construction debris and rubble. Other deep concrete structures were also located beneath the slab. NYSDEC requested that Con Edison sample the cindery-ashy material in the tunnel and material found in other structures. The results are shown on Figure 5-24 of this report. Samples of the rubble material were also collected and analyzed at the request of NYSDEC; these results are shown on Figure 5-28, originally Figure 7-24 from the June 2001 Remediation Report. After reviewing the results, the NYSDEC granted approval to Con Edison to backfill the substructures with the rubble that was removed from them. The cindery material was removed from the tunnel and disposed of off-site as industrial waste. This section of the tunnel was double washed with an industrial detergent and double rinsed with potable water by Con Edison. The North Hall area was backfilled with certified clean fill in January 2000.

CB-04

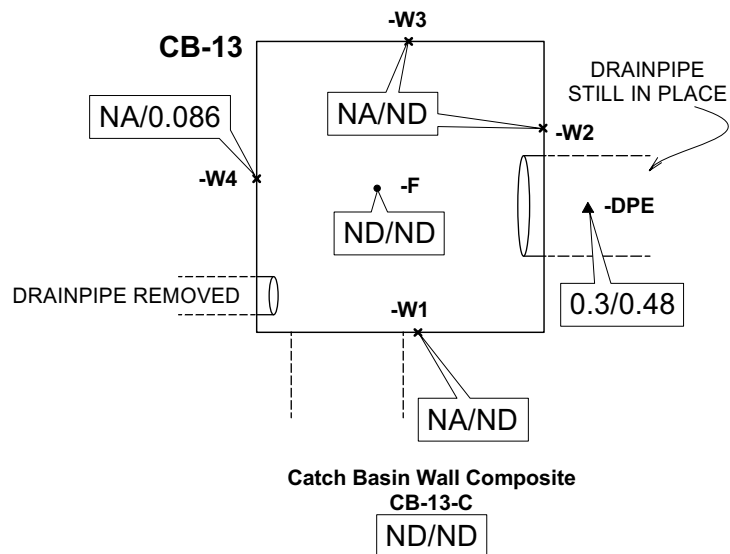


NOTE:

All sample numbers are prefixed with catch basin ID, e.g. **CB-04-W2**

Catch basin is 1.5 ft deep

CB-13



NOTE:

All sample numbers are prefixed with catch basin ID, e.g. **CB-13-W2**

Catch basin is 3.5 ft deep

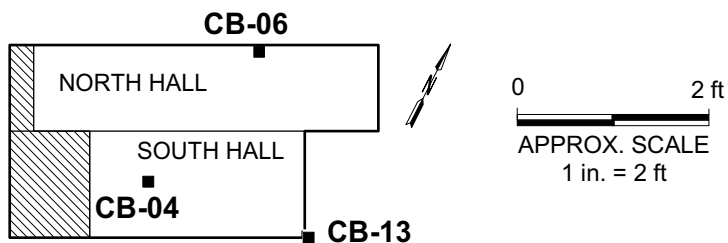
Legend

- Floor concrete sample
- × Wall concrete sample
- ▲ Drainpipe sample

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed

ND Not detected at
analytical detection limit



*Figure 7-21b from June 2001 Remediation Report

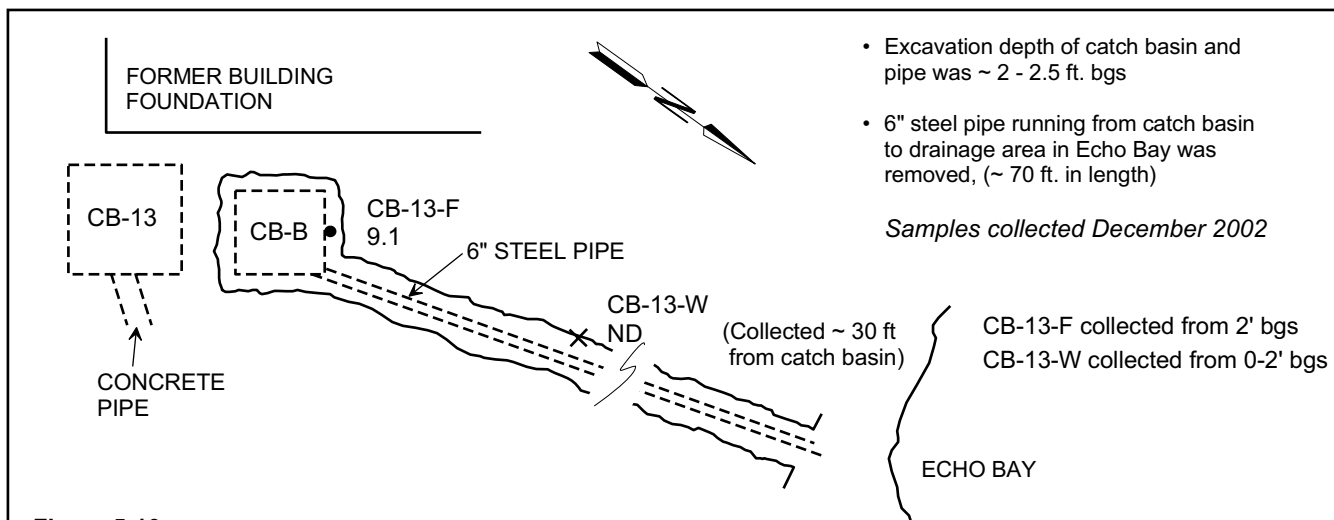


Figure 5-10a

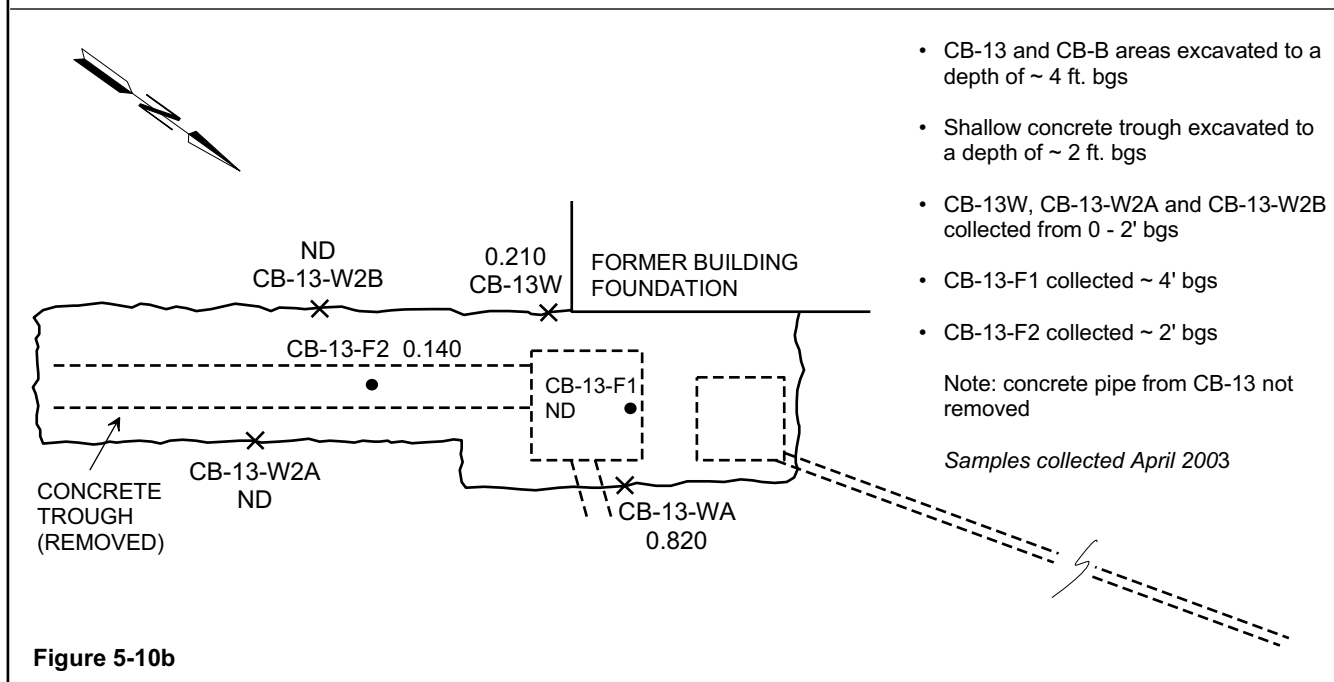
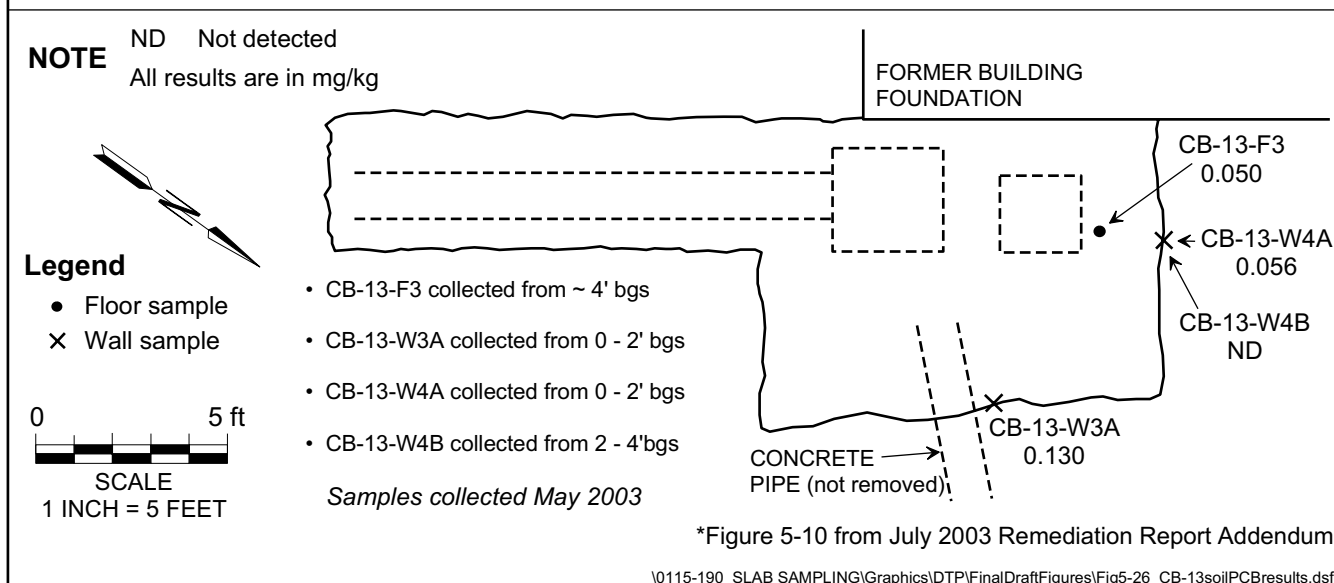
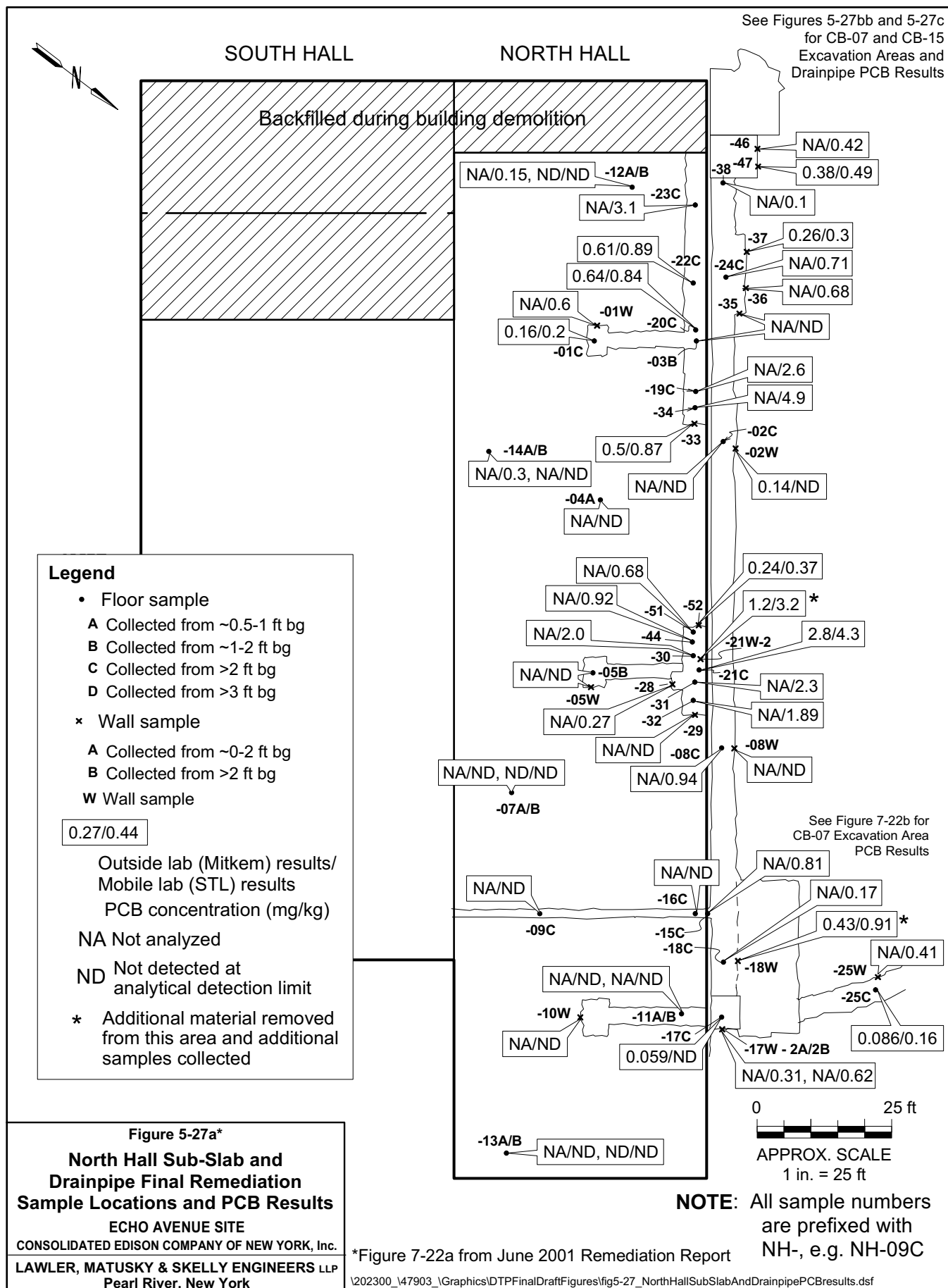
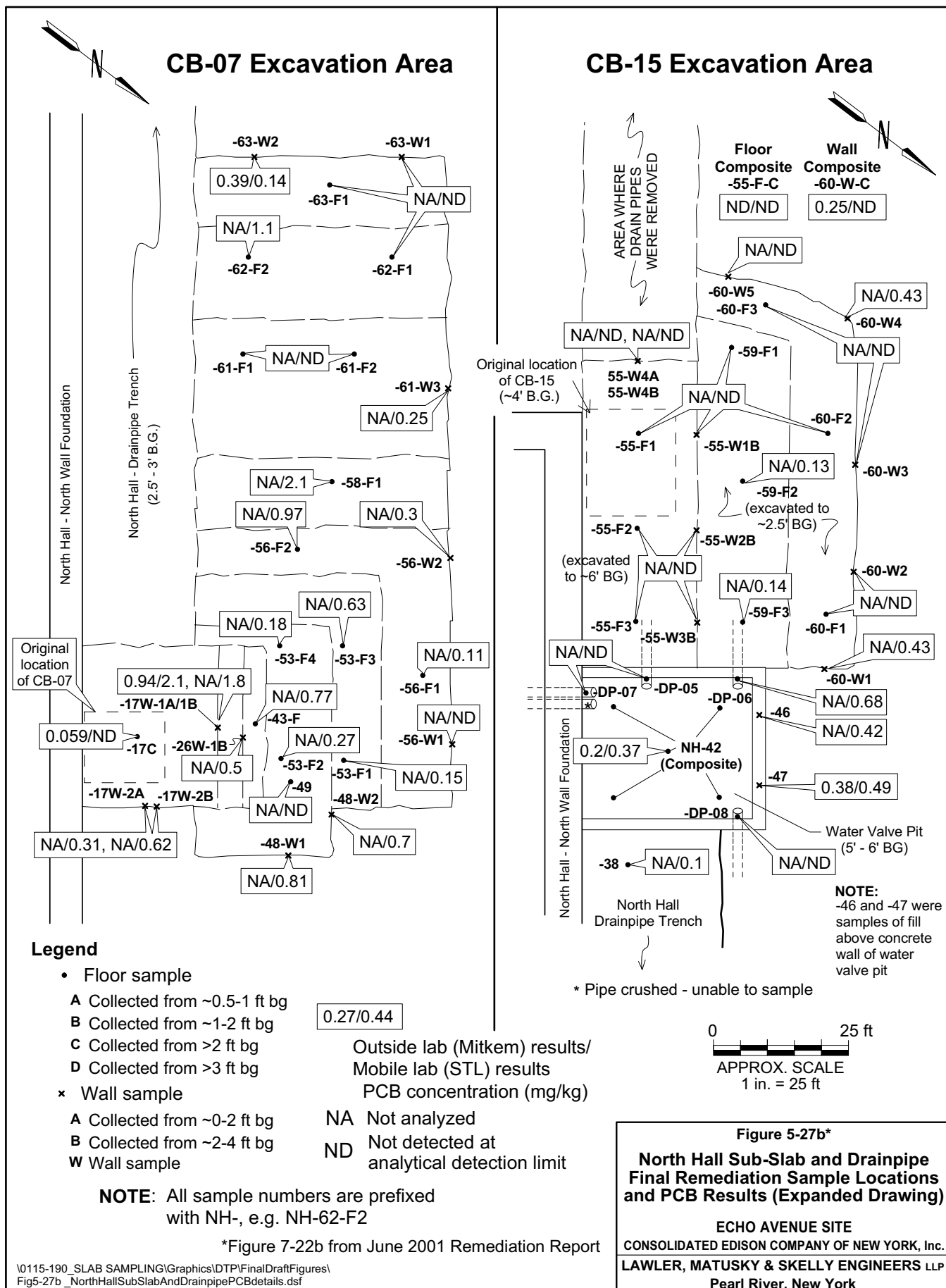
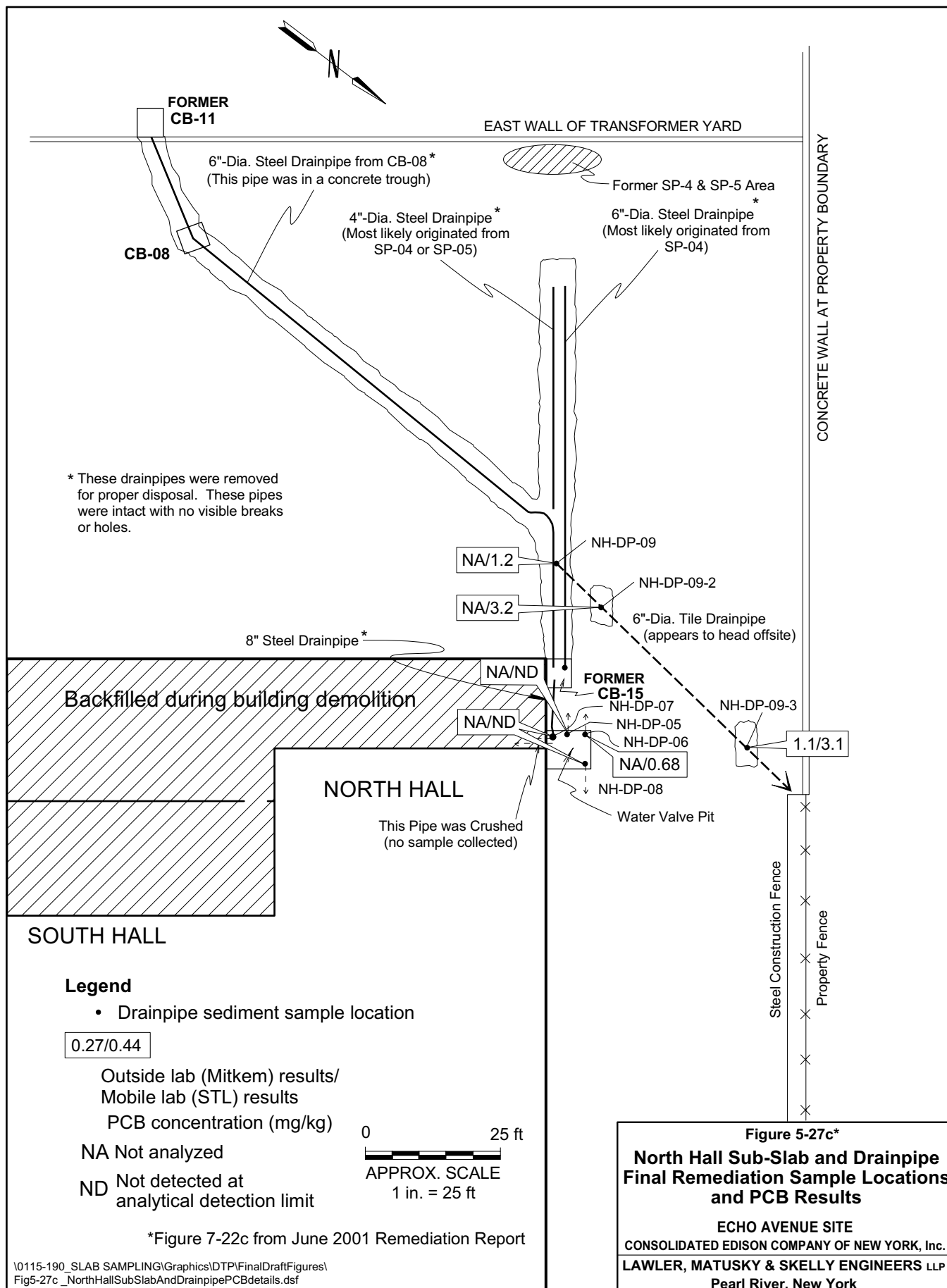


Figure 5-10b

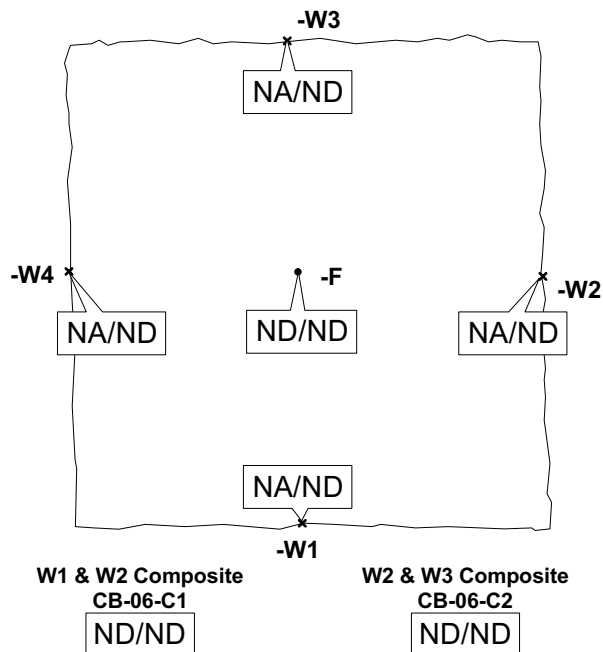








CB-06



NOTE:

All sample numbers are prefixed with catch basin ID, e.g. **CB-06-W2**

- No drainpipes in CB-06
- W1 & W2 were fill walls
- W2 & W3 were brick/concrete walls
- Catch basin is 3 ft deep

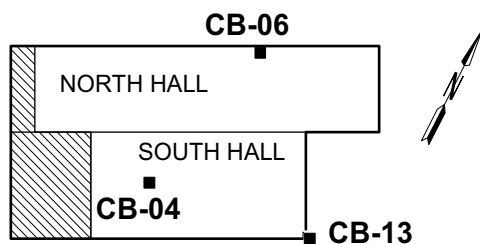
Legend

- Floor concrete sample
- × Wall concrete sample

0.27/0.44 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed

ND Not detected at
analytical detection limit

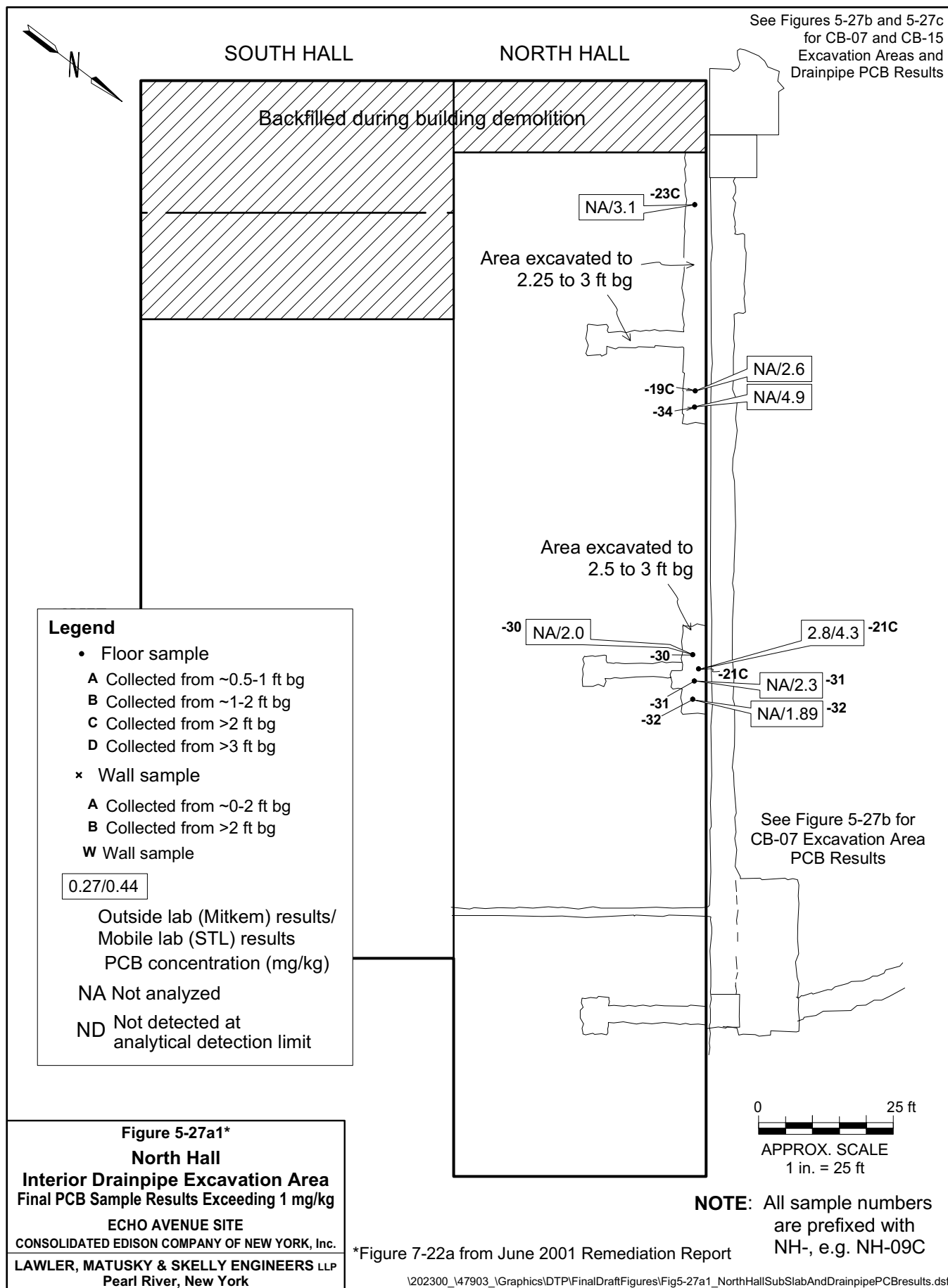


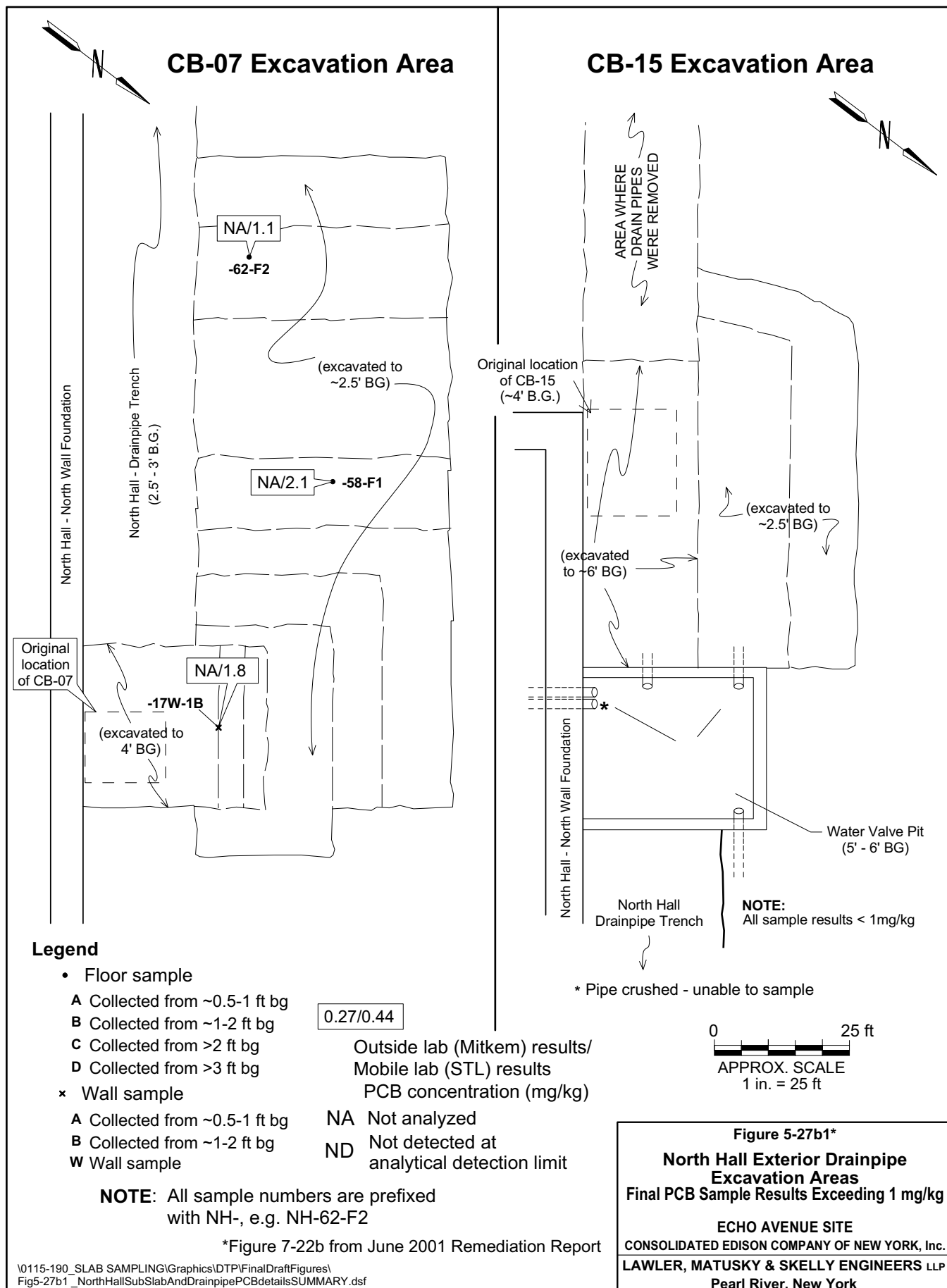
0 2 ft
APPROX. SCALE
1 in. = 2 ft

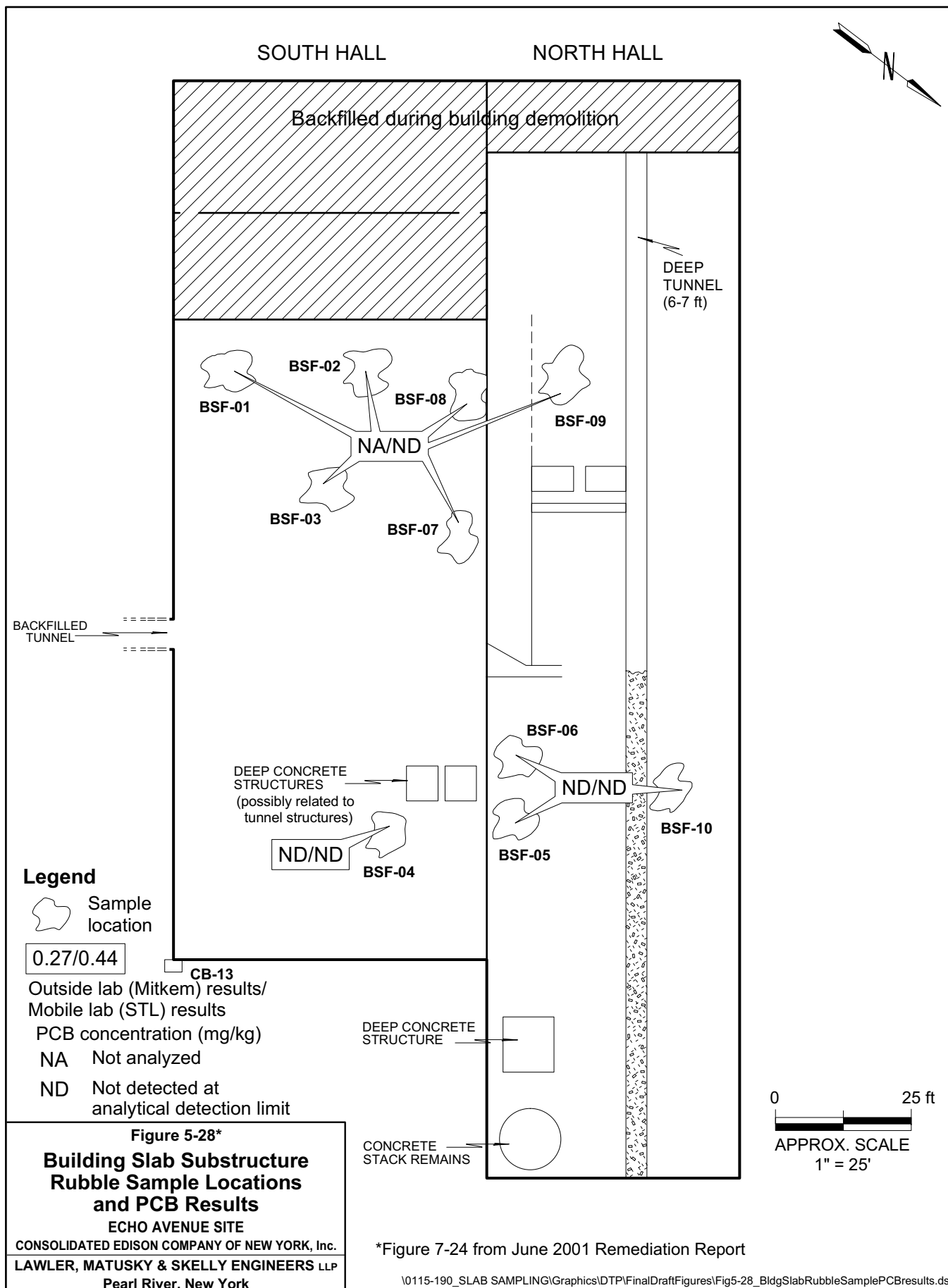
Figure 5-27d* North Hall Catch Basin Concrete, and Soil Sample Locations and PCB Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 7-22d from June 2001 Remediation Report







5.1.4 On-Site Soil beneath the Cable Vault

The cable vault was initially remediated as part of the 1997-1998 remediation. At that time the cable vault was cleaned and concrete samples were collected from the floor and walls of the structure; the samples met the cleanup criteria for PCBs. The ducts entering the cable vault were cleaned and plugged. Soil samples were collected from beneath the concrete floor of the cable vault; these samples all met the PCB cleanup criteria. NYSDEC granted approval to backfill the cable vault with clean fill in May 1998.

A drainpipe from the cable vault that ran towards the northwest was removed during the 1998 remediation. The results from this investigation are shown on Figure 5-29, formerly Figure 7-16 from the June 2001 Remediation Report. Monitoring well EAMW-6 was located in the vicinity of the drainpipe excavation and was removed as a result of the excavation (see Figure 5-45 in Section 5.2 of this report for location). The original boring for this well had selected samples collected from different depths for analysis for TCL organics and TAL inorganics. The results are provided on Table 5-2, formerly Table 4-17 from the 1993 Phase II Report. The RSCOs specified in TAGM 4046 for the TCL and TAL constituents detected in these samples have been added to the table for comparison. The data indicated several SVOCs and metals above the RSCOs. As described above in Section 4.2, a sample from the cable vault drainpipe investigation was analyzed for TCL organics and TAL inorganics. The results, which are provided in Table 4-5 of this Report, showed the presence of several SVOCs above the cleanup objectives. Additional excavation was requested by NYSDEC followed by confirmatory sampling to verify that the SVOC contamination was removed to acceptable levels. See Section 4.2 for further discussion, Table 4-5 for the data, and Figure 6-3 for location of these samples.

In 2003, Con Edison elected to remove the entire cable vault. Three walls and the floor were removed; the fourth (east) wall could not be removed because it is part of the basement wall of the Site's substation building, which had been backfilled in 1995. Results of concrete samples collected from this fourth wall are provided on Figure 5-30, formerly Figure 7-14a from the June 2001 Remediation Report. After the three walls and floor were removed, soil samples were collected from the bottom and north, south, and west side walls of the cable vault excavation; these results are shown on Figure 5-31, formerly Figure 5-8 from the July 2003 Remediation Report Addendum. The excavation was backfilled with the original backfill material used when the cable vault was originally backfilled in 1998. Additional certified clean fill was used to bring the excavation up to grade. Top soil was added and grass planted to prevent erosion.

AREA ALONG SUMP DUG DOWN TO 13'-14' B.G. LOOKING FOR ANY EVIDENCE OF TILE PIPE ENTERING THE SUMP (NONE WAS FOUND)

AREA EXCAVATED TO 10'-11' B.G. LOOKING FOR EVIDENCE OF TILE PIPE (NONE WAS FOUND)

3 LARGE STEEL PIPES 2'-12" Ø, 1'-6" Ø @ ~3' B.G. THESE 3 WERE REMOVED TO DIG FOR THE TILE PIPE. ON THE EAST SIDE OF THE WALL THEY HAD BEEN PREVIOUSLY CUT AND SEALED WITH CONCRETE

THIS AREA EXCAVATED TO 10'-11' BELOW GRADE TO REMOVE THE TILE PIPE IN THIS AREA. TOWARDS THE NORTHWEST END NO EVIDENCE OF THE PIPE WAS FOUND

ABANDONED 6" WATER LINE ~4' B.G.

BRICK WALLS @ ~1' B.G.

EDGE OF MH-1B DUCT BANK
2' DEEP CONCRETE WALL @ GRADE (REMOVED)

CABLE VAULT

BUILDING FOUNDATION WALL

NOTES

Water in excavation stabilized @ about 7' B.G. (top of cable vault)
Top of tile pipe is ~8.5 B.G. (top of cable vault)
CVDP-01 not analyzed because area was excavated deeper and a composite sample was collected from the floor area

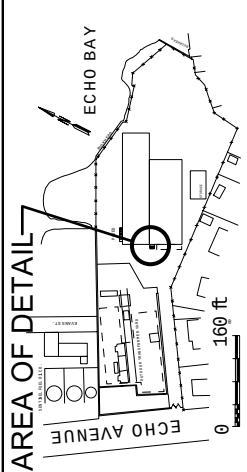


Figure 5-29*

Cable Vault Drain Pipe
Excavation Sample Locations
and PCB Results

ECHO AVENUE SITE
CONSOLIDATED EDSON COMPANY OF NEW YORK, INC.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

- Legend
- X Sample location
 - 0.27 PCB concentration (mg/kg)
 - NA Not analyzed
 - ND Not detected at analytical detection limit

*Figure 7-16
from June 2001
Remediation Report

TABLE 5-2 (Page 1 of 2)

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SOIL BORING DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-6 (0-2 ft)	RE EAMW-6 (0-2 ft)	DL EAMW-6 (0-2 ft)	EAMW-6 (4-6 ft)	EAMW-6 (8-10 ft)	EAMW-6 (10-12 ft)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
VOLATILE ORGANICS (mg/kg)								
Methylene chloride	ND	0.002j	+	0.002j	ND	ND	0.1	NA
SEMI-VOLATILE ORGANICS (mg/kg)								
Naphthalene	0.82	0.79	0.93j	ND	ND	ND	13	NA
2-Methylnaphthalene	1.5	1.0	1.2j	ND	ND	ND	36.4	NA
Acenaphthalene	4.0e	3.9e	6.5	ND	ND	ND	41	NA
Acenaphthene	0.25j	0.27j	0.32j	ND	ND	ND	50.0 ***	NA
Dibenzofuran	0.51	0.79	0.83j	ND	ND	ND	6.2	NA
Fluorene	0.9	1.1	2.0	ND	ND	ND	50.0 ***	NA
Phenanthrene	1.7	0.63	1.6j	ND	ND	ND	50.0 ***	NA
Anthracene	8.8e	2.9e	3.3	ND	ND	ND	50.0 ***	NA
Carbazole	0.19j	0.1j	0.25j	ND	ND	ND	-	NA
Fluoranthene	2.9	1.2	3.4	ND	ND	ND	50.0 ***	NA
Pyrene	2.7	2.3	2.4	ND	ND	ND	50.0 ***	NA
Benzo(a)anthracene	4.0e	2.9	4.8	ND	ND	ND	0.224 or MDL	NA
Chrysene	4.9e	4.8e	4.8	ND	ND	ND	0.4	NA
bis(2-Ethylhexyl)phthalate	0.38	0.34j	0.42j	ND	ND	ND	50.0 ***	NA
Benzo(b)fluoranthene	2.3	2.4	2.8	ND	ND	ND	1.1	NA
Benzo(k)fluoranthene	2.1	1.8	4.0	ND	ND	ND	1.1	NA
Benzo(a)pyrene	0.64	0.82	0.8j	ND	ND	ND	0.061 or MDL	NA
Indeno(1,2,3-c)pyrene	0.46	0.96	0.92j	ND	ND	ND	3.2	NA
Dibenzo(a,h)anthracene	0.62	1.1	0.57	ND	ND	ND	0.014	NA
PESTICIDES/PCBs (mg/kg)								
Aldrin	0.0081p	+	+	ND	ND	ND	0.041	NA
Heptachlor epoxide	0.0085p	+	+	ND	ND	ND	0.02	NA
Endrin ketone	0.0092p	+	+	ND	ND	ND	-	NA
Endosulfan II	0.017	+	+	ND	ND	ND	0.9	NA
α-Chlordane	0.0022p	+	+	ND	ND	ND	0.64	NA
4,4'-DDD	0.0079p	+	+	ND	ND	ND	2.9	NA
Aroclor 1254	ND	+	+	ND	ND	ND	1.0/10*	NA
Aroclor 1260	ND	+	+	ND	ND	ND	1.0/10*	NA

Originally Table 4-18 (February 1993 Phase II Investigation Report)

SOIL BORING DATA SUMMARY (JULY 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-6 (0-2 ft)	EAMW-6 (4-6 ft)	EAMW-6 (8-10 ft)	EAMW-6 (10-12 ft)	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)	EASTERN USA BACKGROUND SOIL CONCENTRATIONS (b)
METALS (mg/kg)						
Aluminum	7,080	18,900	18,900	20,500	SB	33,000
Antimony	ND	ND	ND	ND	SB	0.6 - 10 (n)
Arsenic	4.4	2.3	0.82B	0.95	7.5 or SB	3.0 - 12.0 ae
Barium	81.6	68.8	189	193	300 or SB	15 - 600
Beryllium	0.42B	0.70 B	0.62B	0.59B	0.16 or SB	0 - 1.75
Cadmium	1.4	ND	2.2	1.7	1 or SB	0.1 - 1.0
Calcium	3,750	1,210	1,530	1,220	SB	130 - 35,000 ae
Chromium	12.4	28.1	56.2	52.2	10 or SB	1.5 - 40.0 ae
Cobalt	9.1B	7.6B	22.9	17.8	30 or SB	2.5 - 60.0 ae
Copper	45.7	18.5	30.9	30.3	25 or SB	1.0 - 50.0
Iron	14,100	20,800	35,600	34,200	2,000 or SB	2,000 - 550,000
Lead	141+	9.0 SA	5.5	5.2	SB**	4.0 - 61 or 200 - 500**
Magnesium	3,060	4,420	8,240	8,520	SB	100 - 5,000
Manganese	128	375	849	636	SB	50 - 5,000
Mercury***	ND N	ND N	ND N	ND N	0.1	0.001 - 0.2
Nickel	14.9	18.5	40.6	35.0	13 or SB	0.5 - 25
Potassium	2,530	2,390	8,460	9,770	SB	8,500 - 43,000 ae
Selenium	0.60B	ND W	ND W	ND W	2 or SB	0.1 - 3.9
Silver	ND	ND	0.70 B	0.70 B	SB	0.1 - 5.0 (n)
Sodium	408B	405B	267B	259B	SB	6,000 - 8,000
Thallium	0.20 B	ND	0.62B	1.1B	SB	0.1 - 0.8 (q)
Vanadium	35.2	37.9	63.5	70.2	150 or SB	1.0 - 300
Zinc	78.0	43.0	73.5	74.0	20 or SB	9.0 - 50
Cyanide	ND	ND	ND	ND	***	N/A

Note: Numbers in bold exceed objectives.

* Not analyzed

** As per TACM #4045, total VOCs < 10 ppm, total SVOCs < 500 ppm, individual SVOCs < 50 ppm, and total Pesticides < 10 ppm

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94

b - Found in associated blanks

j - Estimated concentration; compound present below quantitation limit

e - Estimated concentration; exceeds GC/MS calibration range

* 0 ppm refers to surface concentrations; 10 ppm refers to subsurface concentrations

** 200 - 500 ppm in metropolitan suburban areas and rural areas to

*** Some forms of Cyanide are complex and stable while other forms are pH dependent and

hence are very unstable. Site-specific forms of Cyanide should be taken into

consideration when establishing soil cleanup objectives.

ae - New York State background concentration

(n) - Oregon, J. The Soil Chemistry of Hazardous Materials

(q) - Bowen, H. J. Environmental Chemistry of the Elements

B - Value is less than the contract required detection limit but

greater than the instrument detection limit

ND - Not detected at analytical detection limit

DL - Diluted sample analysis

RE - Ret-analysis

SB - Sample blank

SA - Estimated concentration; pesticide/PCB analyte has 25% difference for the detected concentrations between the two GC columns

W - Value determined by the method of standard addition

N - Post digestion spikes out of control limits sample absorbance is less than 50% of spike absorbance

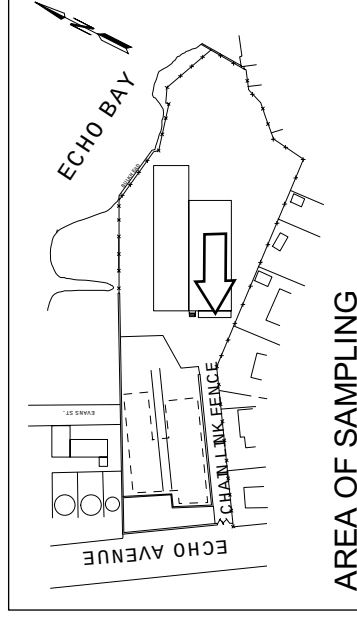
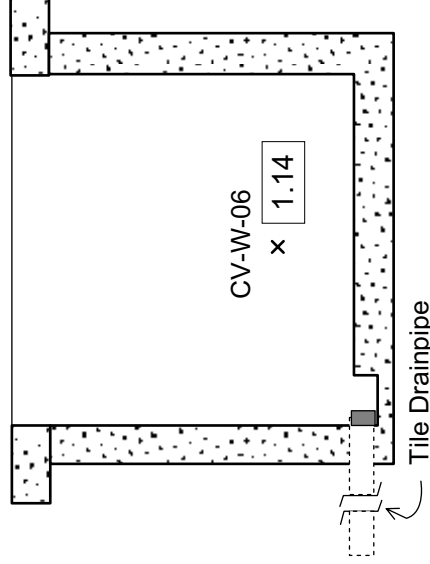
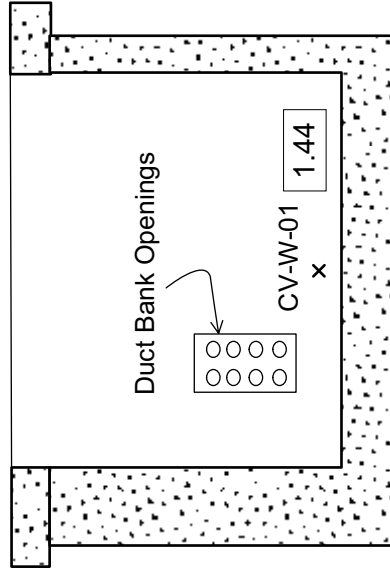
+ - Spike sample recovery is not within control limits

* - Correlation coefficient for the MSA is <0.995

*** - Mercury results are likely biased low as the MS recovered 30.8%; actual concentration may be greater than those reported

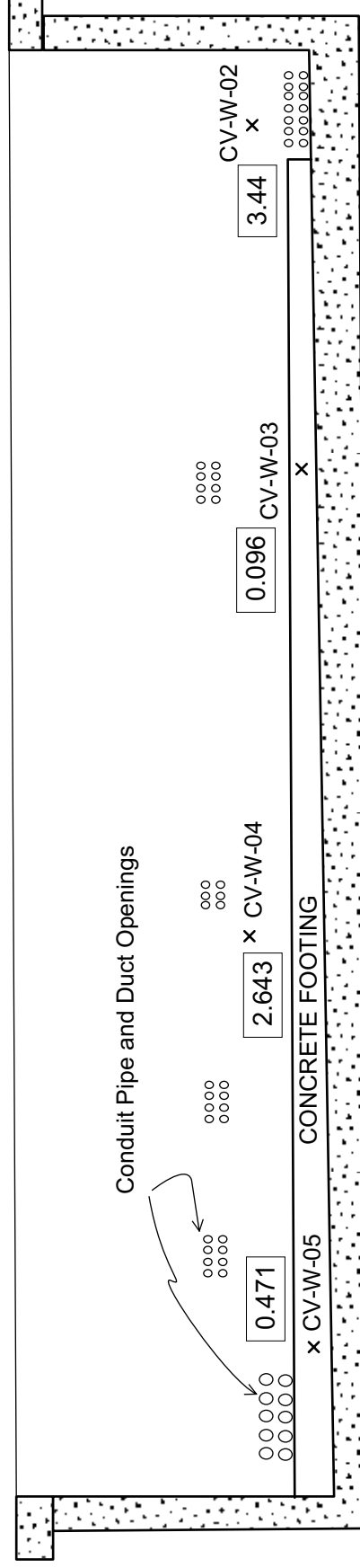
SOUTH WALL

NORTH WALL



EAST WALL

42 ft



SIDE VIEW

Legend

- NOTE: Before cleaning, the sediment level in the vault was up to approximately level with the top of the footing
- x Wall Sample
- 0.27 PCB concentration (mg/kg)

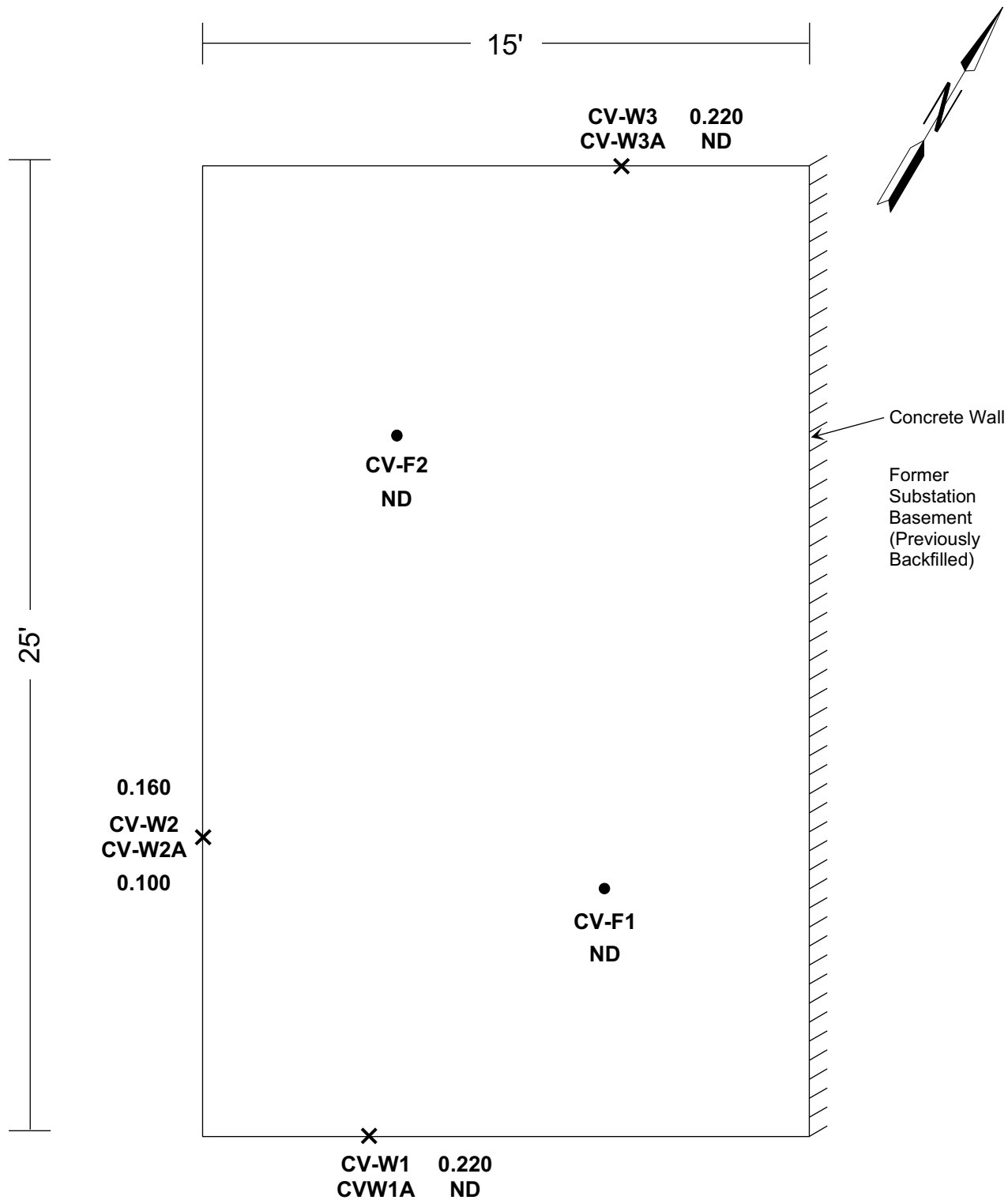


Figure 5-30

Cable Vault Concrete Wall and Floor Sample Locations and PCB Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 7-14a from June 2001 Remediation Report



Legend

- X Wall Sample
- Floor Sample

Note: All Results in mg/kg

NOT TO SCALE

NOTE: CV-W1, -W2, and -W3 taken from 0-2 ft depth

CV-W1A, -W2A, and -W3A taken from 2-6 ft depth

CV-F1 and -F2 taken from 6 ft depth

Figure 5-31*

Cable Vault Excavation Confirmatory PCB Soil Sample Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 5-8 from July 2003 Remediation Report Addendum

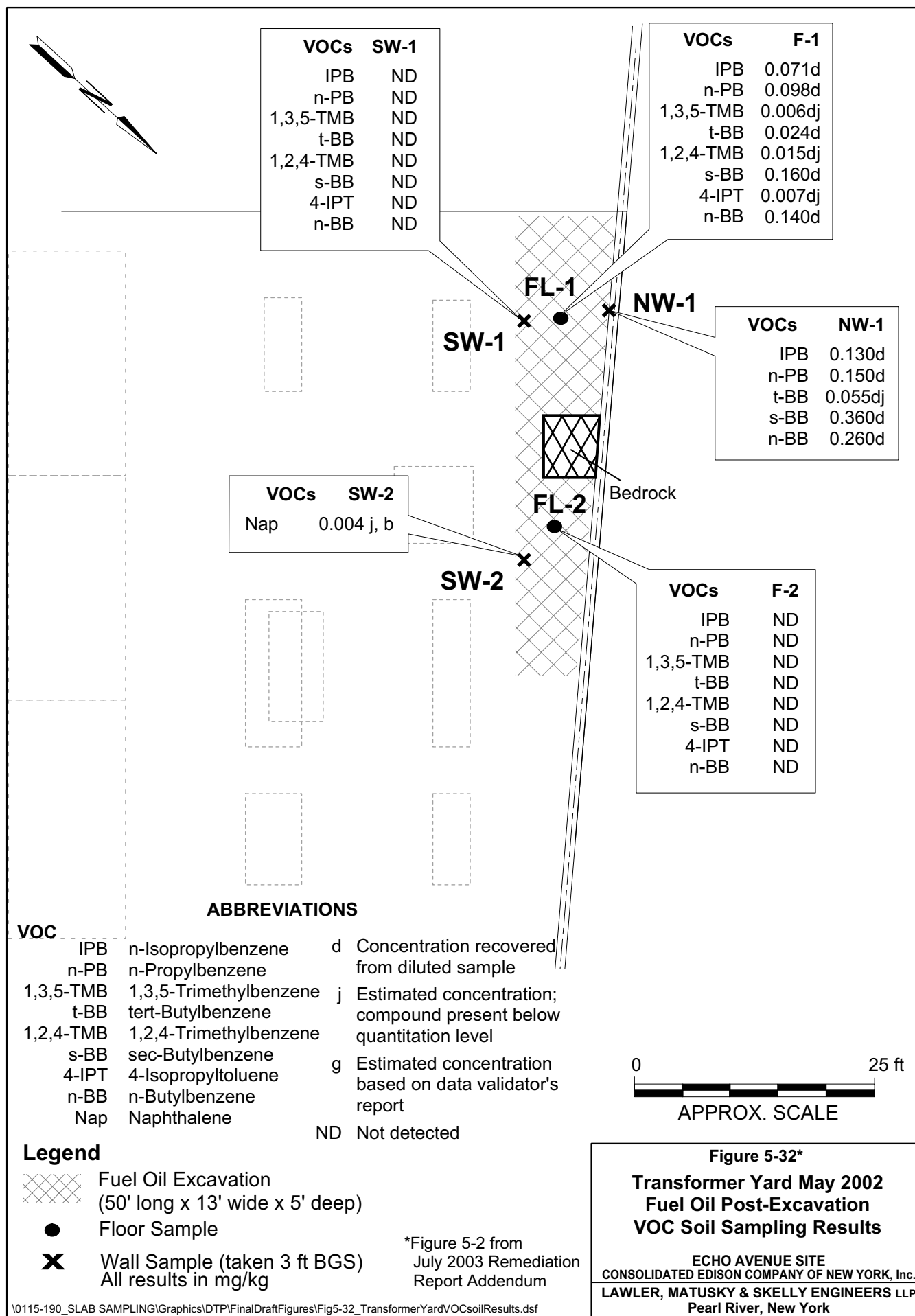
5.1.5 On-Site Soil beneath the Transformer Yard Slab

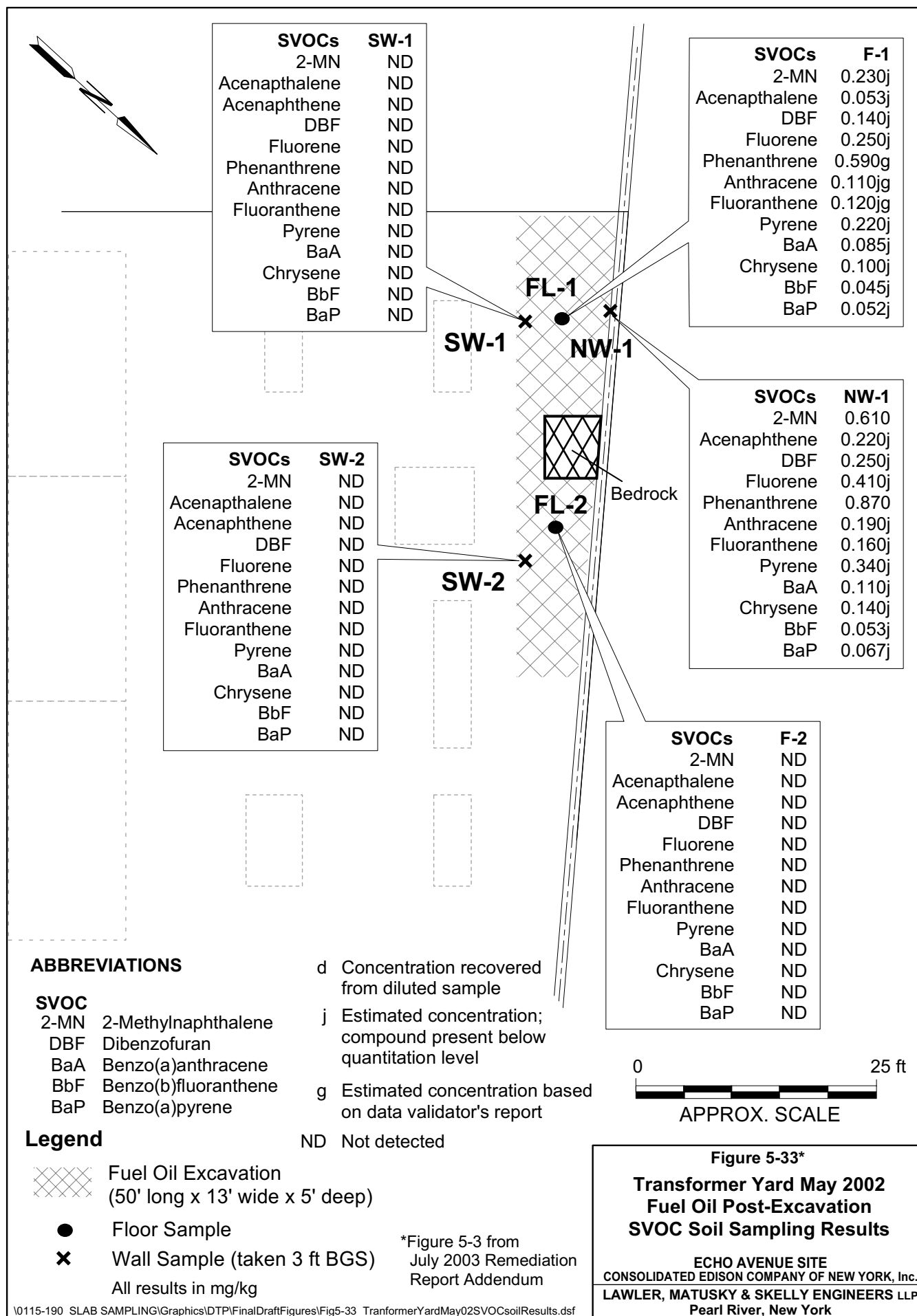
As part of the building demolition project conducted by Con Edison in 1995, the transformer yard superstructure and concrete structures above the slab were removed. As part of the 1997-1998 remediation, various structures, e.g. manholes, electrical boxes, catch basins, moat drains, etc. were sampled and either removed or allowed to remain in place. Soil samples were collected from various areas in the transformer yard not covered by concrete. The slab itself was to be cleaned and allowed to remain. As described above in Section 4.2, one soil sample, TYSS-01, which was analyzed for TCL organics and TAL inorganics showed only elevated levels of zinc. A second sample, TYMD-01, collected from the transformer yard moat drain area and analyzed for TCL organics and TAL inorganics, had elevated levels of lead, cadmium, copper, and zinc above the RSCOs in TAGM 4046. These areas were subsequently excavated.

NYSDEC requested that soil samples be collected beneath the transformer yard slab. Instead Con Edison elected to remove the transformer yard slab in its entirety; the slab was removed in 1999. An investigation to determine the source of the high metals concentrations found in the transformer yard moat drain area was conducted and found that the cindery-ash fill material located just beneath the slab was the source. Con Edison elected to remove the cinder layer. This removal effort was halted in March 2000 when oil was observed seeping through the exposed soil. An investigation determined that the source of the oil was the concrete duct banks.

Oil was also observed in the northwest corner of the transformer yard; the source was traced to a previous oil spill that occurred on the adjacent property. Con Edison excavated the area in 2002 to a depth of five feet and then collected samples from the floor and walls of the excavation for VOC and SVOC analysis. The results are provided on Figures 5-32 and 5-33, formerly Figures 5-2 and 5-3 of the July 2003 Remediation Report Addendum; all detected compounds are provided on the figures. With the exception of one PAH, BaP, found in NW-1, none of the results exceeded either the RSCOs in TAGM 4046 or the cleanup guidelines in NYSDEC's fuel oil contaminated soil cleanup guidelines (Ref. 24, Appendix A of this Report). The BaP result of an estimated concentration of 0.067 mg/kg was just above the RSCO TAGM 4046 concentration of 0.061 mg/kg. A report entitled Echo Avenue Fuel Oil Spill Report was prepared and submitted to NYSDEC in August 2002 and on September 30, 2002, NYSDEC closed the spill. At the request of NYSDEC, the excavation was lined with a bentonite-impregnated sheeting material, CCW MiraCLAY®, before backfilling in May 2003. No further excavation was conducted in this area.

The cinder layer removal was completed in 2002. Figure 5-34, previously Figure 5-1 from the July 2003 Remediation Report Addendum, shows the final lead concentrations in the soil after the cinder layer was removed; all levels were less than the 500 mg/kg cleanup level. The results





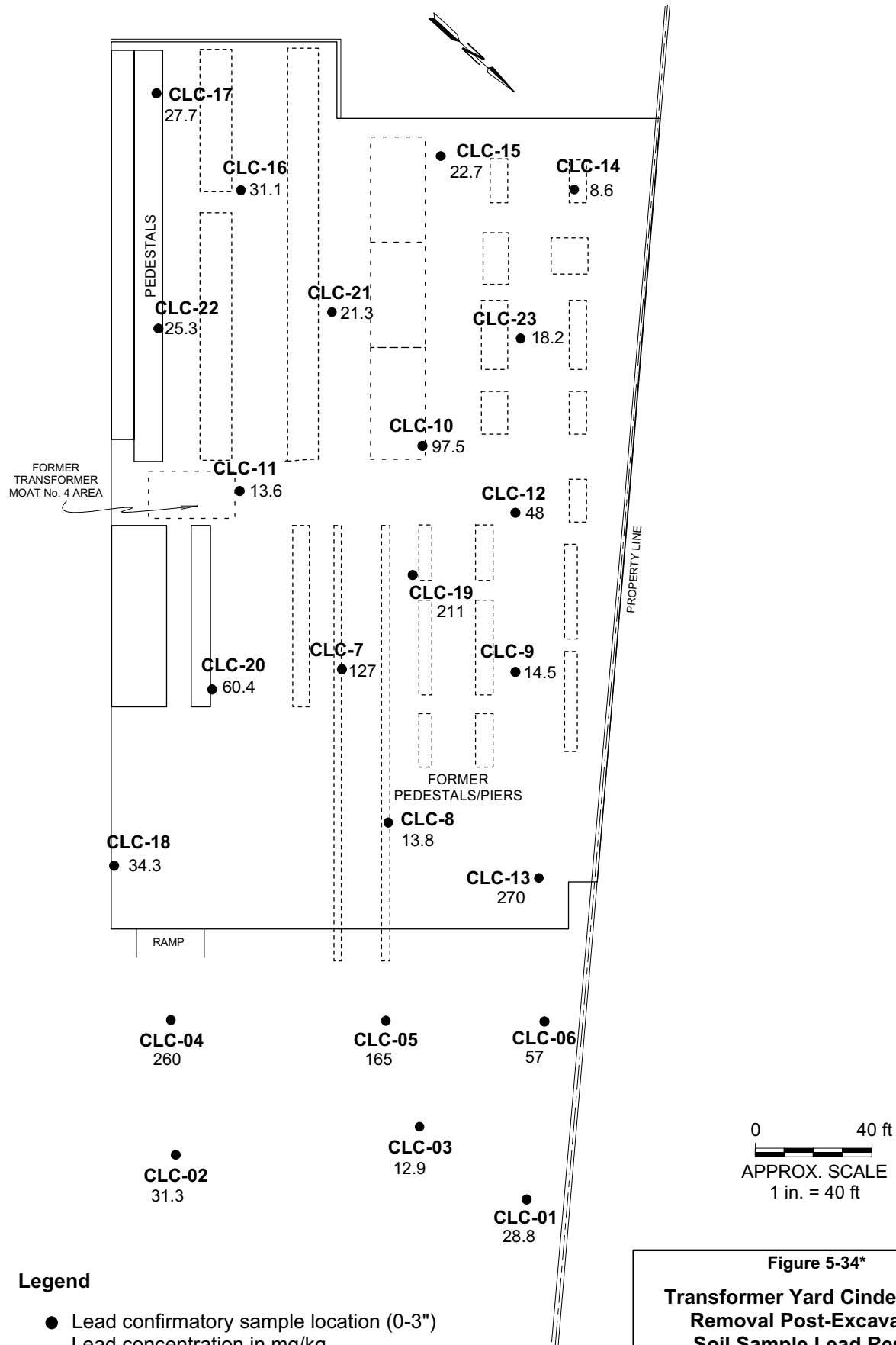


Figure 5-34*

**Transformer Yard Cinder Layer
Removal Post-Excavation
Soil Sample Lead Results**

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 5-1 from July 2003 Remediation Report Addendum

of the 17 samples collected from the former transformer yard area contained an average lead concentration of 62.1 mg/kg with the highest concentration of 270 mg/kg at sample location CLC-13. This area was subsequently excavated another 5 ft below grade as described below. Since the lead had been found to be associated with the cindery ash fill material that previously had been entirely removed, no further lead samples were collected.

Con Edison elected to remove the concrete duct banks after the remaining cinder layer was removed. An asbestos contractor abated the asbestos associated with the cable ducts prior to their removal. Subsequently, after the cable ducts were removed, Con Edison elected to remove all the remaining structures in the transformer yard (manholes, pull boxes, pedestals) and excavate the soil to a depth of six ft. The various sumps and above ground pits (EASP-01, EASP-04, EASP-05) located in this area had been removed previously. Sump EASP-02 had been backfilled in 1998 but was removed as part of this remediation work. This work was completed in 2003. Figure 5-19 of this report shows that the final PCB concentrations at the bottom of the excavation were all less than 1 mg/kg. The area was backfilled with clean certified backfill to bring it up to the original grade. Polyethylene mesh sheeting was placed on top of the backfill prior to placement of top soil. The area was planted with a field grass mix to prevent erosion.

5.1.6 On-Site Soils on Remainder of Site

The tunnel connecting the substation building to the office building was cleaned by pressure washing and backfilled in 1998. An asbestos patch located in the tunnel was removed prior to the tunnel being backfilled. One deep sump-like structure, labeled EASP-06, is located near the area where the northeast corner of the South Hall meets the North Hall (see Figure 5-24 for location). It was sampled in November 1996 and had 0.06 mg/kg of PCBs in the bottom. The top 2 feet of the structure was removed, and it was backfilled with clean material. It is assumed, based on the location and depth of this structure, that it was also related to the intake and discharge of water from the bay when the facility was a coal-fired electric generating plant. The sump remains on the site.

A drainpipe that runs along the bulkhead on the northwest side of the property adjacent to the mudflat area was investigated in 1999. Sediment samples were collected at various points. The results are shown on Figure 5-35, formerly Figure 7-25 from the June 2001 Remediation Report; the drainpipe was not removed. The concrete drainpipe from former CB-13 at the southeastern corner of the South Hall also remains in place (see Figure 5-26 of this report for location of the drainpipe from former CB-13).

As part of the final remediation of the site conducted in 2002 to 2003, Con Edison elected to remove the cable duct banks between the transformer yard and cable vault and between the cable

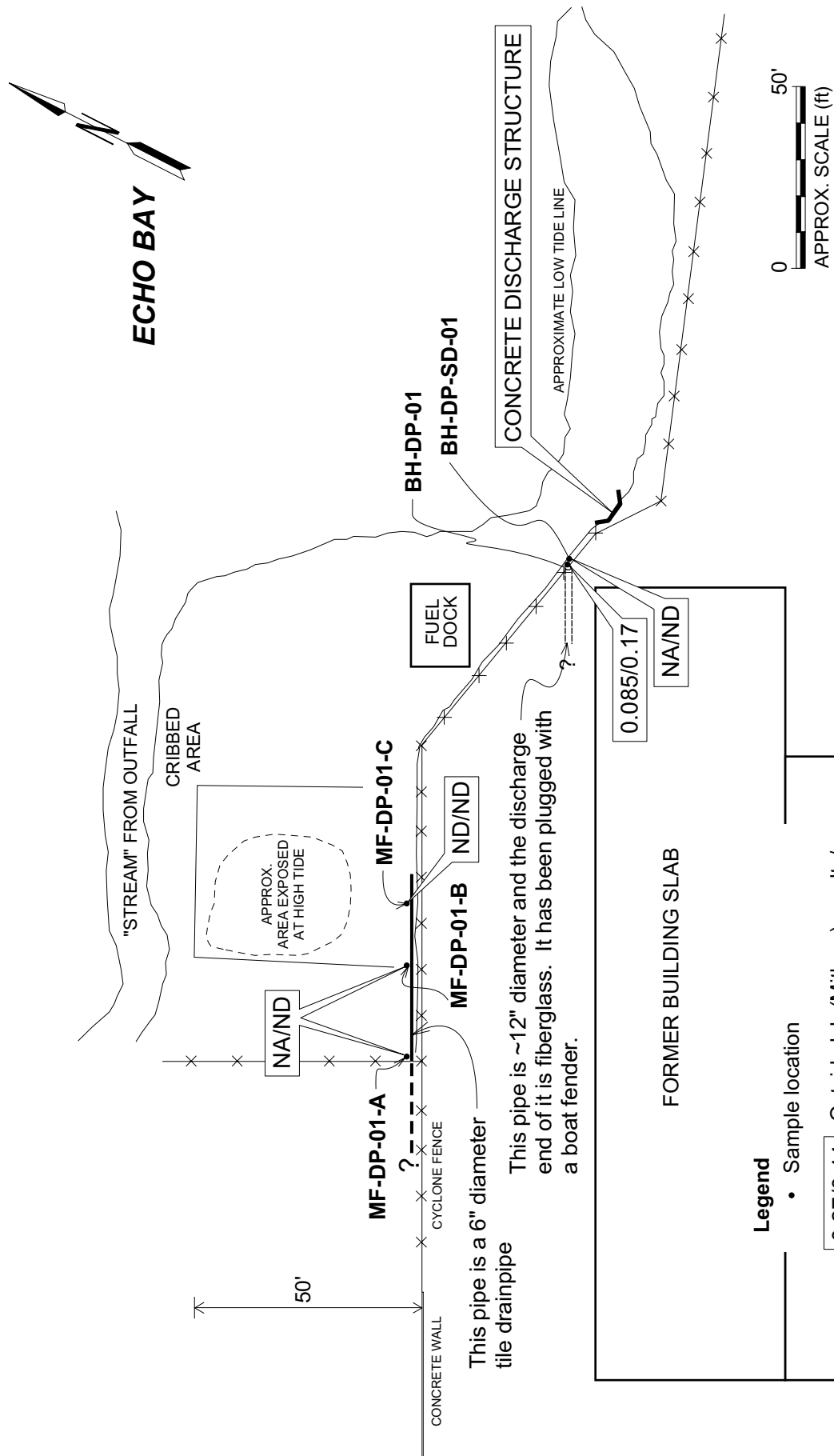


Figure 5-35*

Northern Property Line Drainpipe Sediment Samples and PCB Results

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CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

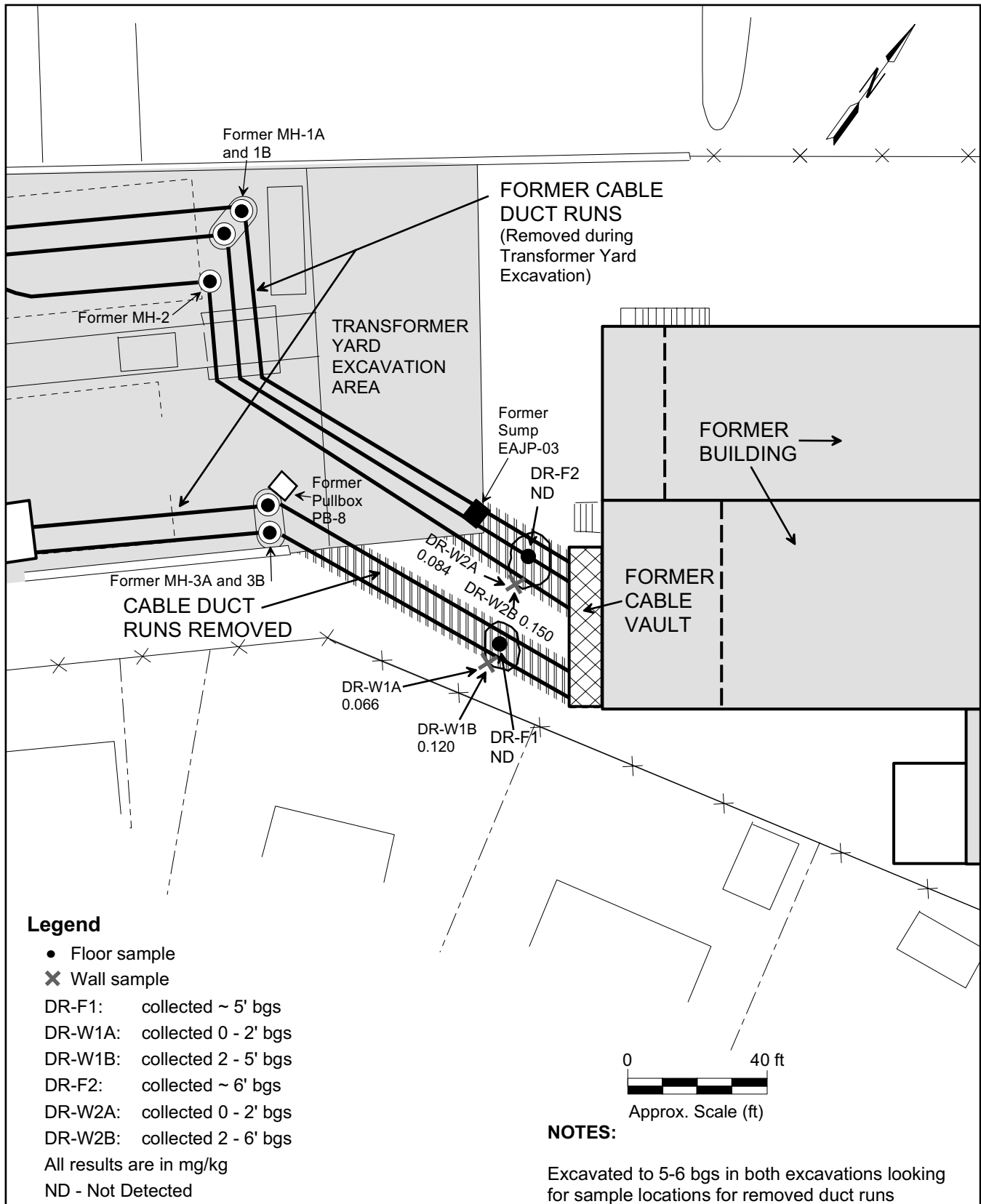
*Figure 7-25 from
June 2001 Remediation Report

vault and tunnel. Sump EASP-03 which had been previously sampled and backfilled, was removed as part of this remediation plan. Figures 5-36 and 5-37, previously Figures 5-6 and 5-7 from the July 2003 Remediation Report Addendum, present the PCB results of the soil after the cable ducts were removed from the transformer yard to the cable vault and from the cable vault to the tunnel, respectively.

Two additional catch basins and their drainpipes located in the northeastern corner of the yard near Echo Bay and one catch basin located at the base of the entrance driveway were removed in 2003. The results of the soil samples collected after removal are provided in Figures 5-38 and 5-39, formerly Figures 5-9 and 5-11 from the July 2003 Remediation Report Addendum.

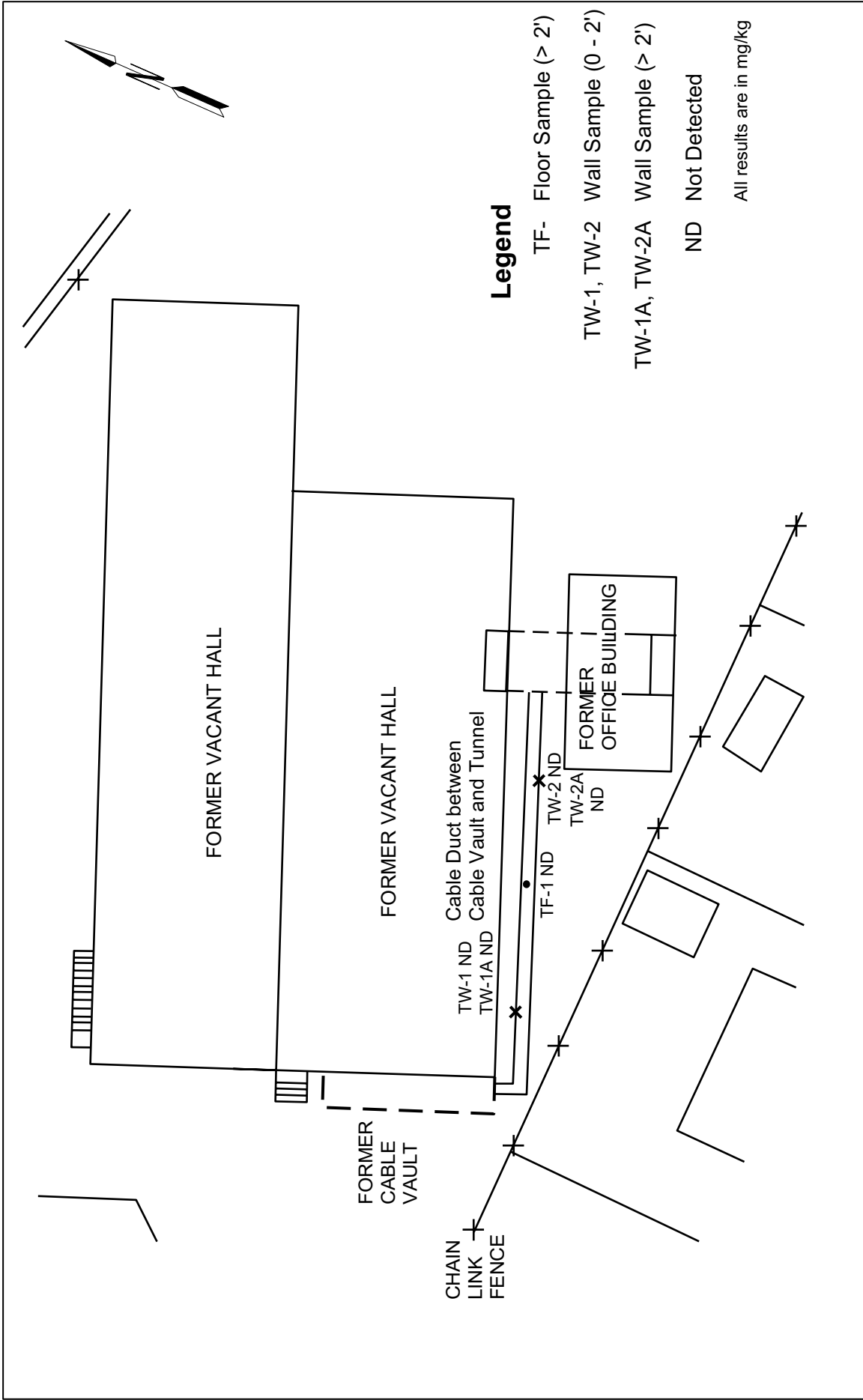
5.2 GROUNDWATER

Five monitoring wells were originally installed on the site in 1987 and one additional well was installed as part of the Phase II Investigation in 1992. Figures 5-40 to 5-43, formerly Figures 3-2 to 3-5 from the February 1993 Phase II Investigation report, show the water table contour maps for the various tidal phases; as can be seen there is a 6 ft difference in the water table elevation in MW-4 and MW-5. The six wells were all sampled in 1992 as part of the Phase II Investigation and analyzed for TCL organics and TAL inorganics. The results are provided on Table 5-3, formerly Table 4-19 from the 1993 Phase II investigation report and presented graphically on Figure 5-44, formerly Figure 4-21 taken from the 1993 Phase II Investigation report. Table 5-3 presents results for TCL organics that were detected in at least one sample and results for all TAL inorganics. Figure 5-44 presents results for all substances with TAGM 4046 RSCO exceedances and for PCBs. Natural ambient groundwater concentrations have been added to the table (Ref. 32, Appendix A of this Report). In 2002, NYSDEC requested that the remaining wells on the site be re-sampled for TCL organics and TAL inorganics. Only two wells, EAMW-1 and EAMW-4, could be sampled. EAMW-2 and EAMW-3 were destroyed during the transformer yard excavation, EAMW-6 was destroyed during the cable vault drainpipe investigation, and EAMW-5 was bent so severely that it was impossible to sample. The results are provided in Table 5-4, formerly Table 5-14 of the July 2003 Remediation Report Addendum, and presented graphically on Figure 5-45, previously Figure 5-13 taken from the July 2003 Remediation Report Addendum. Table 5-4 summarizes results for TCL organics by category, indicates concentrations of TCL organics, and provides results for all TAL inorganics. Figure 5-45 presents results for all substances with TAGM 4046 RSCO exceedances and for PCBs. After the sample results were received and reviewed by the NYSDEC, the NYSDEC authorized Con Edison to abandon the wells. The wells were abandoned in January 2003 in accordance with the NYSDEC Decommissioning Document (Ref. 29, Appendix A of this Report).



\\0115-190_SLAB SAMPLING\Graphics\DTPI\FinalDraftFigures\Fig5-36_CableDuctBankAddtlSoilResults.dsf

*Figure 5-6 from July 2003 Remediation Report Addendum



Legend

- TF- Floor Sample (> 2')
 - TW-1, TW-2 Wall Sample (0 - 2')
 - TW-1A, TW-2A Wall Sample (> 2')
 - ND Not Detected
- All results are in mg/kg

0 40 ft
Approx. Scale (ft)

Figure 5-37*

Tunnel Cable Duct Confirmatory PCB Soil Sample Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 5-7 from July 2003 Remediation Report Addendum

CB-C

NOTES

Excavation

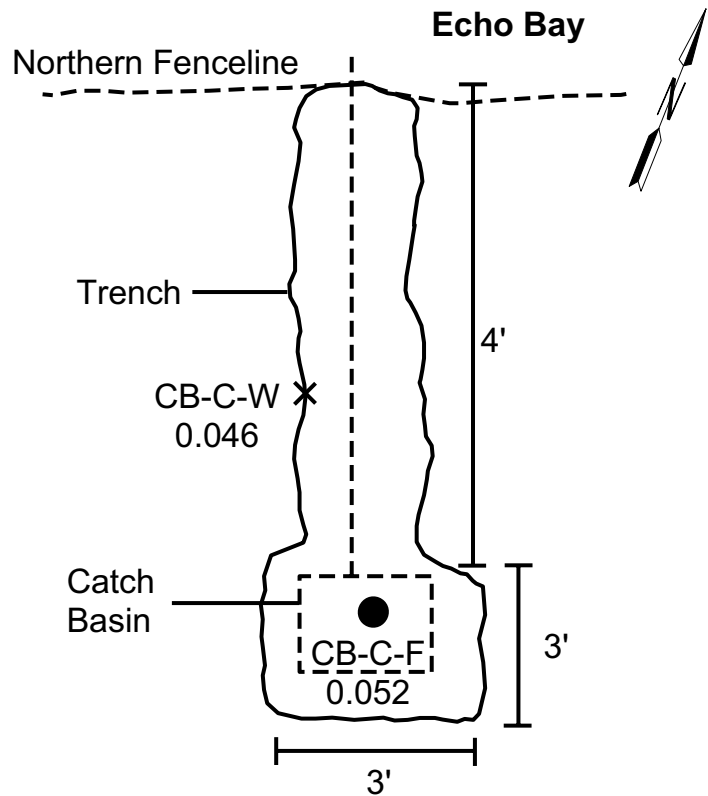
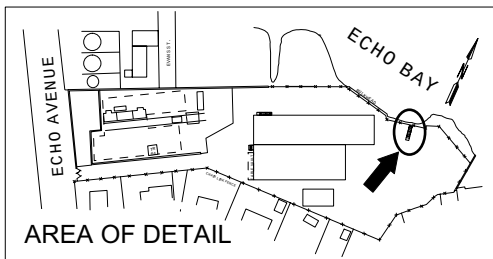
Depth of Catch Basin $\approx$ 3 ft.

Depth of Trench = 2 ft.

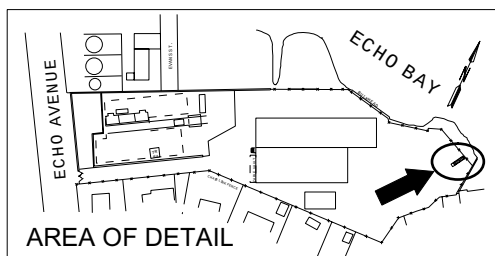
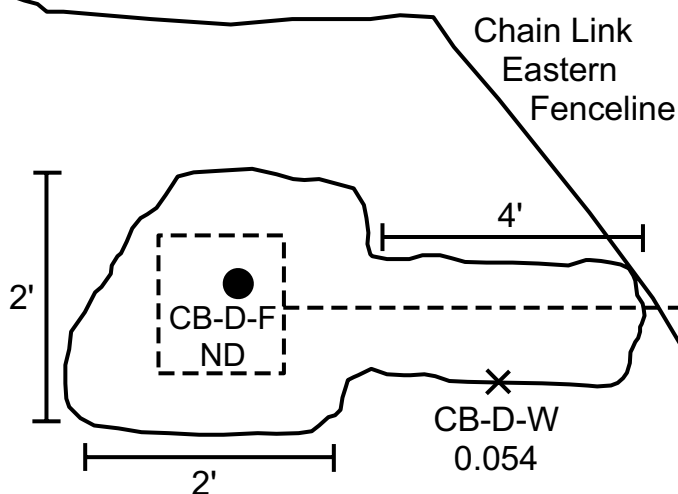
● Floor Sample (> 3 ft.)

× Wall Sample (0 - 2 ft.)

All results are in mg/Kg



CB-D



NOTES

Excavation

Depth of Catch Basin = 2 ft.

Depth of Trench = 2 ft.

● Floor Sample (2 ft.)

× Wall Sample (0 - 2 ft.)

ND Not Detected

All results are in mg/kg

Figure 5-38*

CB-C and CB-D Confirmatory PCB Soil Sample Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 5-9 from July 2003 Remediation Report Addendum

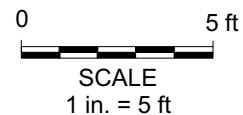
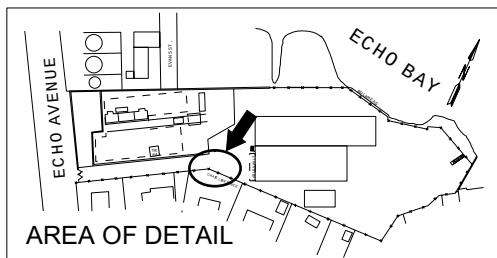
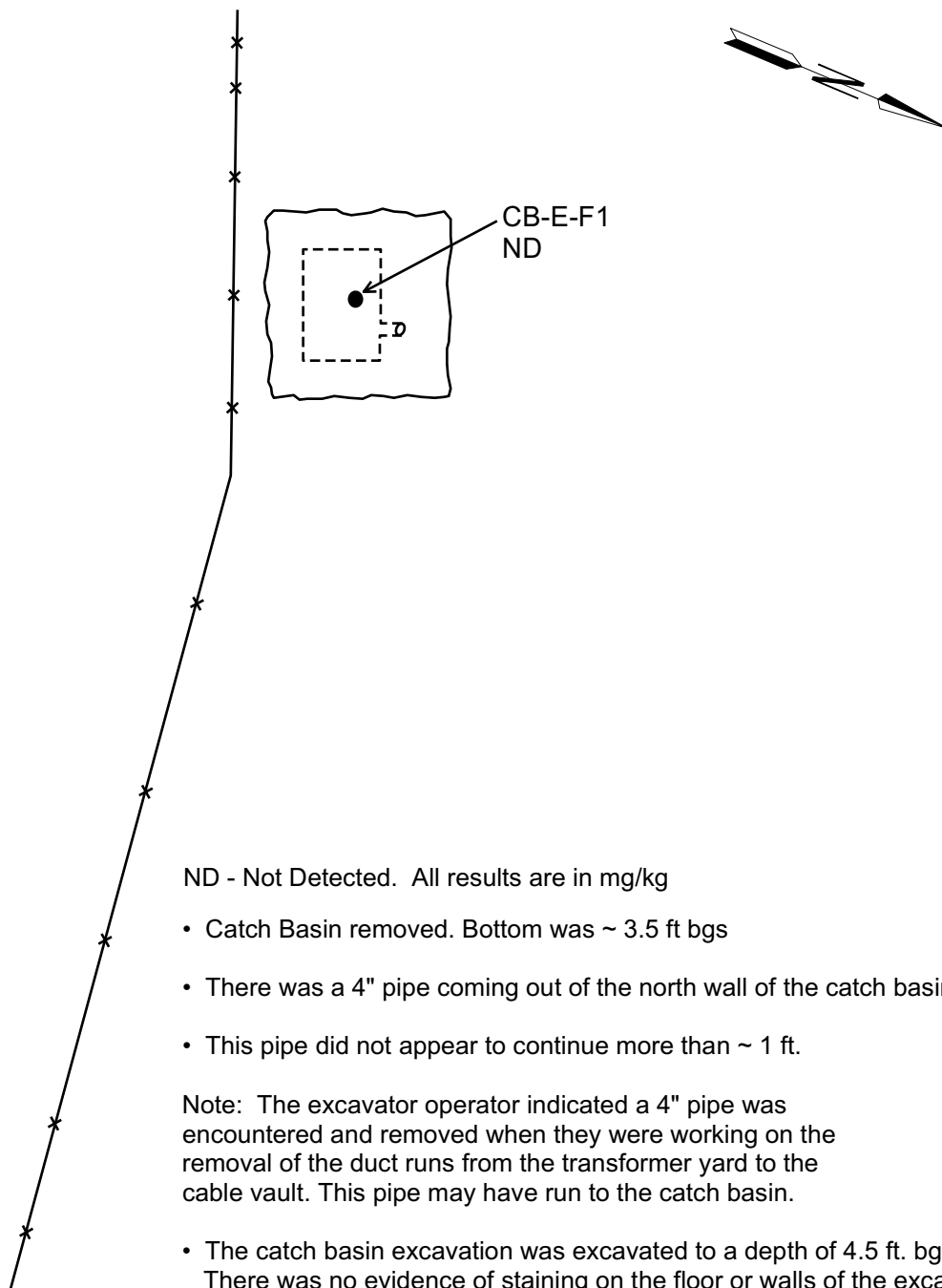
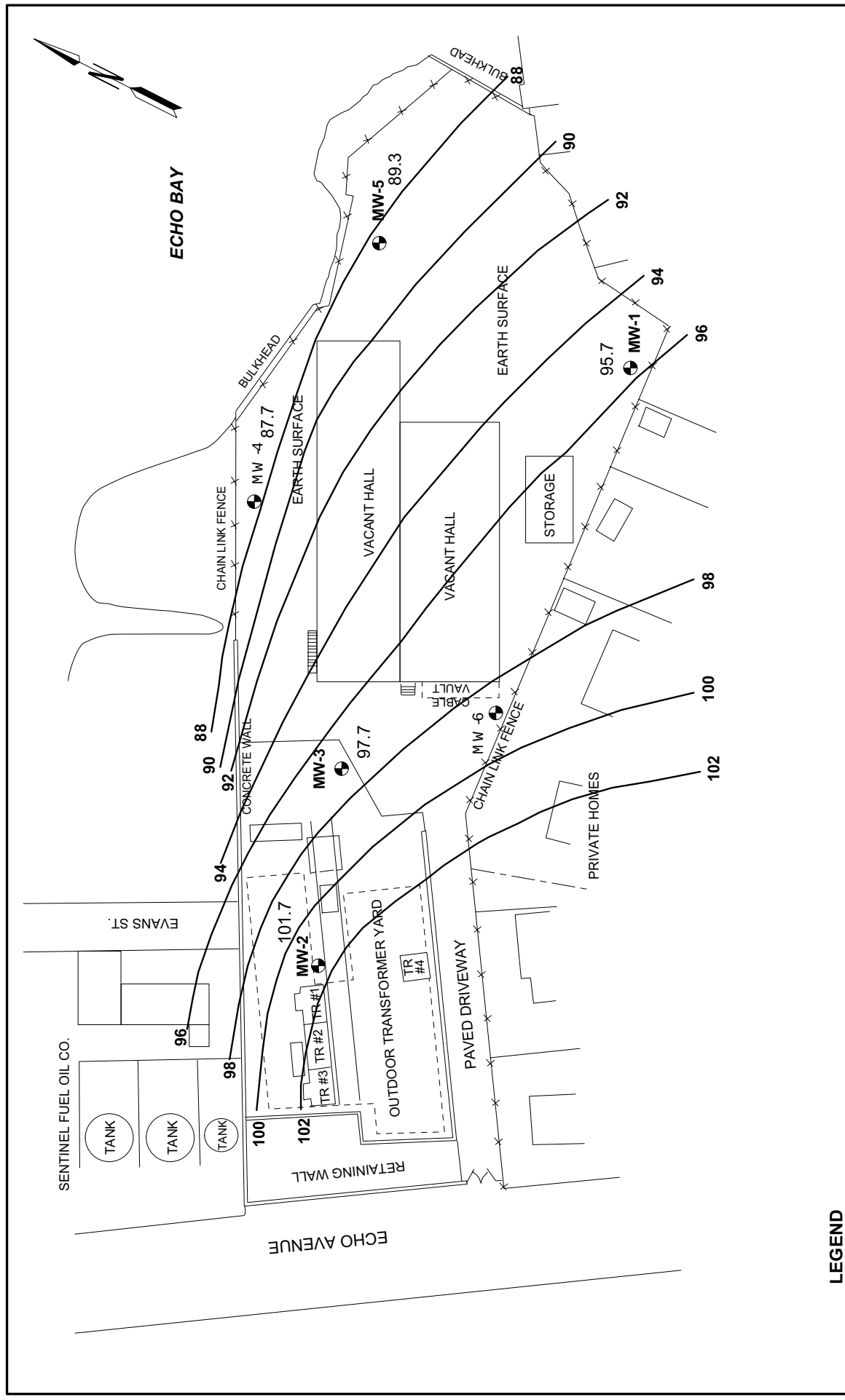


Figure 5-39*

CB-E Confirmatory PCB Soil Sample Result

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

*Figure 5-11 from July 2003 Remediation Report Addendum



LEGEND

Location of monitoring well

101.7 Groundwater elevation

Groundwater contour

Contour interval is 2 ft, datum is MSL

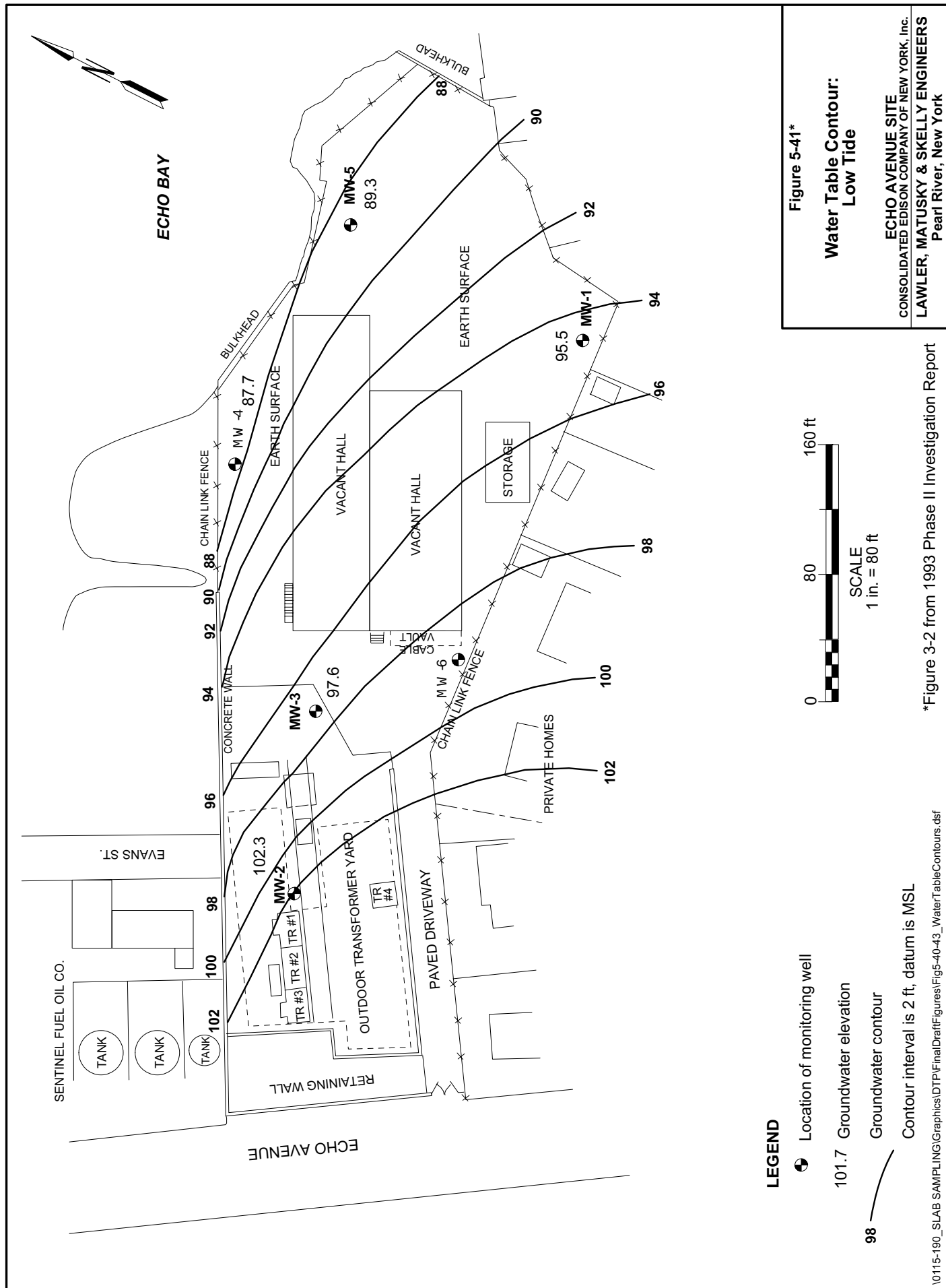
Figure 5-40*

Water Table Contour Map: Falling Tide

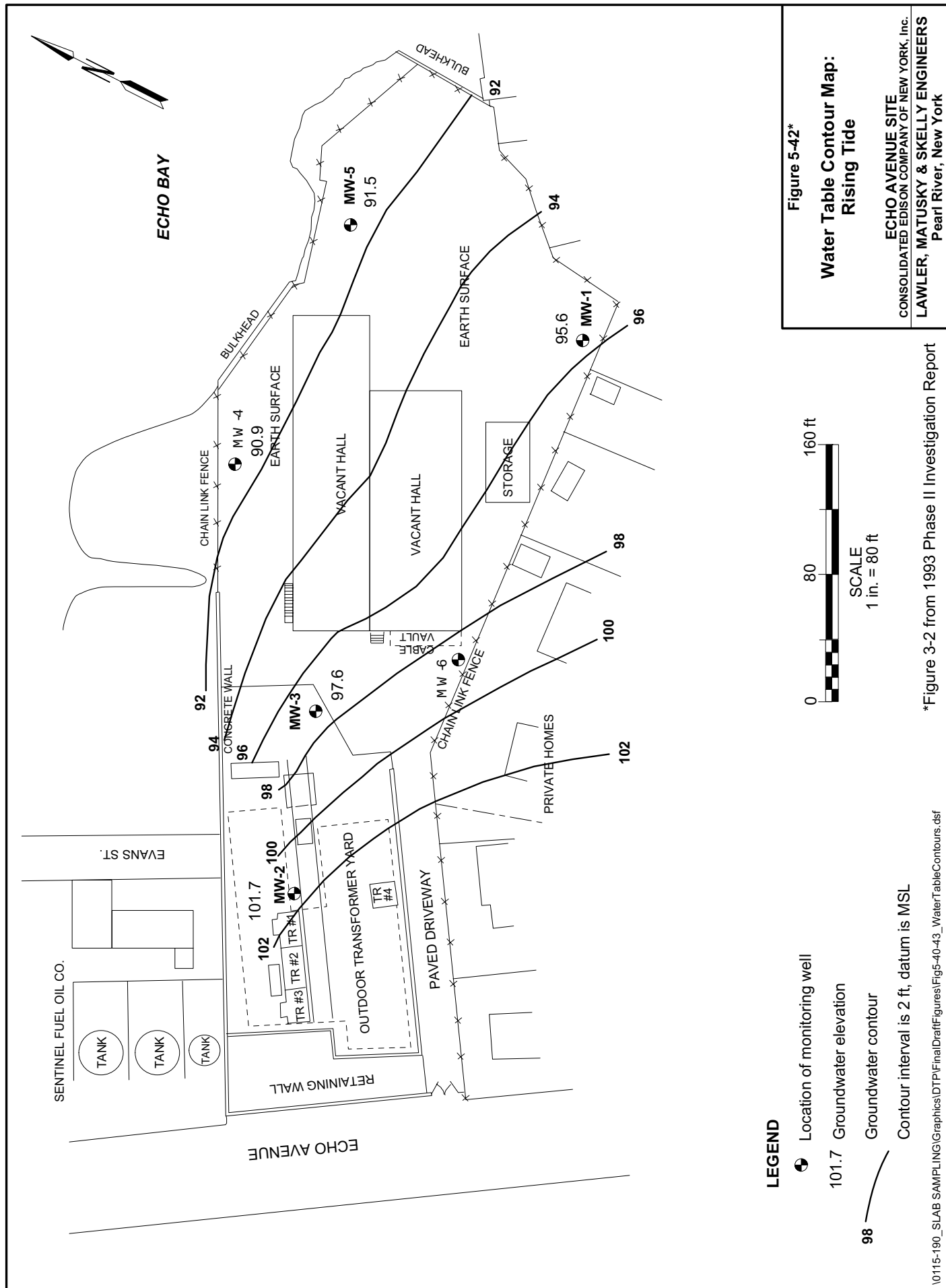
ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York



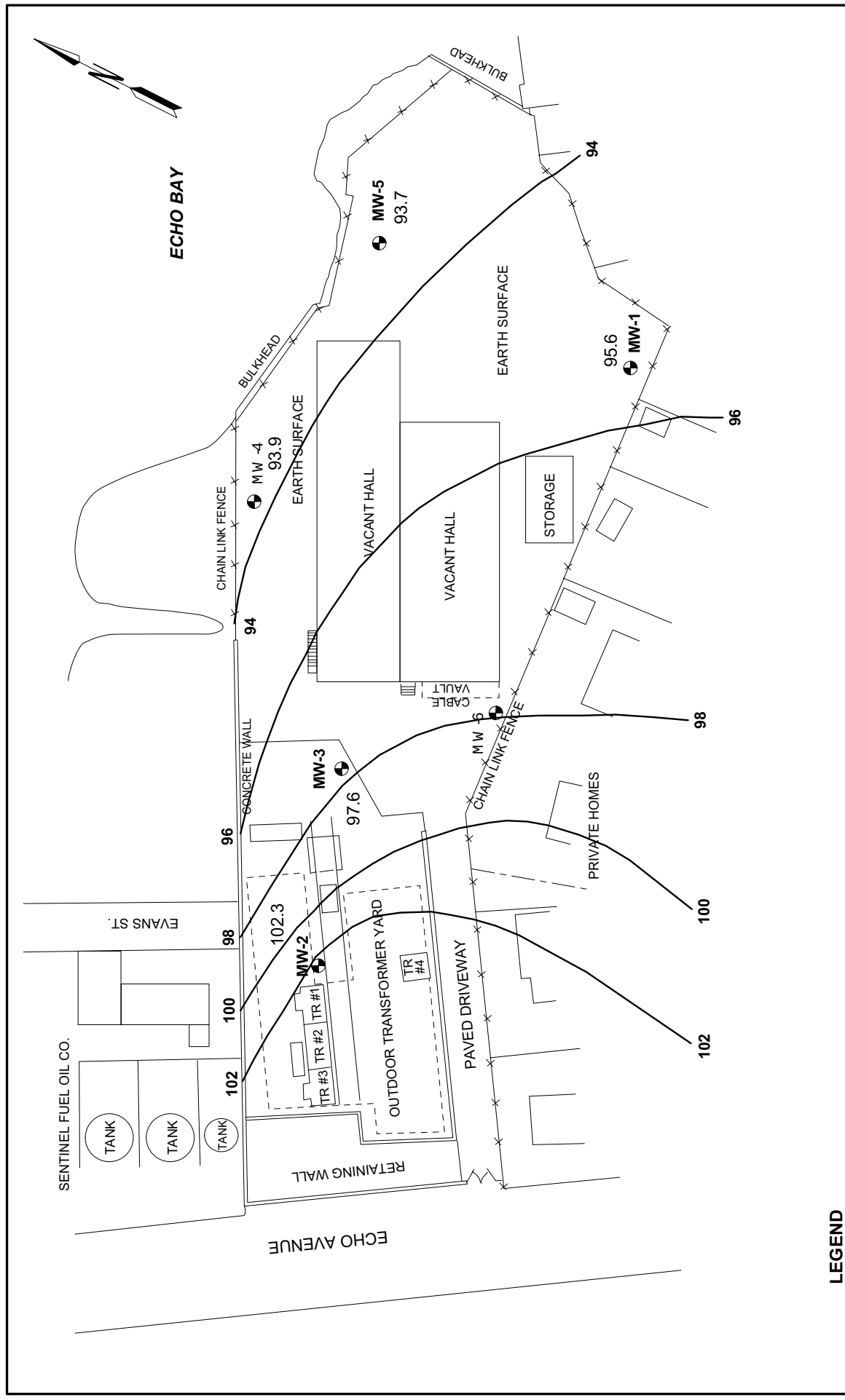
*Figure 3-2 from 1993 Phase II Investigation Report



*Figure 3-2 from 1993 Phase II Investigation Report



*Figure 3-2 from 1993 Phase II Investigation Report



LEGEND

 Location of monitoring well

101.7 Groundwater elevation

 Groundwater contour

Contour interval is 2 ft, datum is MSL

Figure 5-43*

Water Table Contour Map: High Tide

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS
Pearl River, New York

*Figure 3-2 from 1993 Phase II Investigation Report

TABLE 5-3 (Page 1 of 5)

Originally Table 4-19 (February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-1 Jul-92	RE EAMW-1 Jul-92	EAMW-1 Sep 92 ^{1,2}	EAMW-1 Dec 92 ²	EAMW-2 Jul-92	EAMW-2 Sep 92 ^{1,2}	EAMW-2 Dec 92 ²	EAMW-3 Jul-92	RE EAMW-3 Jul-92	Filtered EAMW-3 Jul-92	EAMW-3 Sep 92 ^{1,2}	EAMW-3 Dec 92 ²	NYSDEC CLASS GA STANDARD
VOLATILE ORGANICS (µg/L)	ND	NR	NU	ND	ND	NU	ND	ND	NR	NR	NU	ND	-
SEMI-VOLATILE ORGANICS (µg/L)													
bis(2-Ethylhexyl)phthalate	2bj	6.5b	38b	NR	1.5j	15b	NR	ND	11b	NR	30b	NR	50
PESTICIDES/PCBs (µg/L)	ND	NR	ND	NR	ND	ND	NR	ND	NR	ND ³	ND	NR	-

¹ - Pesticide/PCB samples were analyzed using low-level methods in accordance with NYSDEC C.L.P. 12/81 protocol² - 9/92 and 12/92 volatile samples were analyzed using EPA low-level method 542.2.³ - Sample only analyzed for PCBs

b - Found in associated blanks

j - Estimated concentration; compound present below quantitation limit

ND - Not detected at analytical detection limit

NR - Not run

NU - Data not usable due to holding time exceedance.

RE - Re-analysis

Note: Numbers in bold exceed objectives

TABLE 5-3 (Page 2 of 5)

Originally Table 4-19 (February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-4 Jul-92	EAMW-4 Sep 92 ^{1,2}	EAMW-4 Dec 92 ²	EAMW-5 Jul-92	EAMW-5 Sep 92 ^{1,2}	EAMW-5 Dec 92 ²	EAMW-6 Jul-92	EAMW-6 Sep 92 ^{1,2}	EAMW-6 Dec 92 ²	NYSDEC CLASS GA STANDARD
VOLATILE ORGANICS (µg/L)										
Toluene	2j	NU	ND	ND	NU	ND	ND	NU	ND	5
SEMI-VOLATILE ORGANICS (µg/L)										
bis(2-Ethylhexyl)phthalate	ND	25b	NR	9b	22b	NR	1.5j	13b	NR	50
PESTICIDES/PCBs (µg/L)										
	ND	ND	NR	ND	ND	NR	ND	ND	NR	-

1 - Pesticide/PCB samples were analyzed using low-level methods in accordance with NYSDEC CLP 12/81 protocol.

2 - 9/92 and 12/92 volatile samples were analyzed using EPA low-level method 542.2.

b - Found in associated blanks

j - Estimated concentration; compound present below quantitation limit

ND - Not detected at analytical detection limit

NR - Not run

NU - Data not usable due to holding time exceedance.

Note: Numbers in bold exceed objectives

TABLE 5-3 (Page 3 of 5)

Originally Table 4-19 (February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	EAMW-7 Jul-92	EAMW-7 Sep 92 ^{1,2}	EAMW-7 Dec 92 ²	FIELD BLANK Jul-92	FIELD BLANK Sep 92 ^{1,2}	FIELD BLANK Dec 92 ²	TRIP BLANK Jul-92	TRIP BLANK Sep 92 ^{1,2}	TRIP BLANK Dec 92 ²	NYSDEC CLASS GA STANDARD
VOLATILE ORGANICS (µg/L)	ND	NU	ND	ND	NU	ND	ND	NU	NR	-
SEMIVOLATILE ORGANICS (µg/L)										
bis(2-Ethylhexyl)phthalate	ND	44b	NR	2j	19b	NR	NR	NR	NR	50
PESTICIDES/PCBs (µg/L)	ND	ND	NR	ND	ND	NR	ND	ND	NR	-

¹ - Pesticide/PCB samples were analyzed using low-level methods in accordance with NYSDEC CLP 12/91 protocol² - 9/92 and 12/92 volatile samples were analyzed using EPA low-level method 542.2.

b - Found in associated blanks.

ND - Not detected at analytical detection limit

NR - Not run

NU - Data not usable due to holding time exceedance.

Note: Numbers in bold exceed objectives

TABLE 5-3 (Page 4 of 5)

Originally Table 4-19 (February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CON EDISON - ECHO AVENUE

PARAMETER	Filtrate				EAMW-3		EAMW-4		NYSDEC CLASS. GA STANDARDS
	EAMW-1 Jul-92	EAMW-1 Sep-92	EAMW-2 Jul-92	EAMW-2 Sep-92	EAMW-3 Jul-92	EAMW-3 Sep-92	EAMW-4 Jul-92	EAMW-4 Sep-92	
METALS (µg/L)									
Aluminum	919	442	10,700	2,990	94,100	ND	50,800	254	1,190
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	29.8	15.7 N	36.2	26.4 N	4.4 B	ND	3.4 BN	11.7 SA	10.8 N
Barium	72.5 B	43.8 B	109 B	51.4 B	810	122 B	459	70.8 B	72.1 B
Beryllium	ND	ND	ND	0.80 B	5.6	1.9 B	3.6 B	3.3 B	3.6 B
Cadmium	11.0	4.4 BN	5.0	ND N	26.3	3.8 B	14.5 N	ND	ND N
Calcium	27,700	20,800	38,600	36,600	62,100	51,400	59,700	211,000	199,000
Chromium	ND	ND	27.1	9.6 B	200	ND	109	ND	ND
Cobalt	8.8 B	ND N	ND	ND N	60.5	5.6 B	37.9 BN	ND	ND N
Copper	17.6 B	9.4 B	27.8	8.4 B	149	5.6 B	83.7	29.3	27.9
Iron	26,800	10,700 N	12,300	4,270	118,000	139	60,400 N	9,170	2,490 N
Lead	17.0 N	8.9	27.8 N	7.9	88.9 N	ND N	58.9 SA	18.9 N+	21.0 W
Magnesium	11,000	6,920	3,770 B	3,320 B	25,000	3,400 B	16,500	64,800	605,000
Manganese	1,180	429 EN	225	189 EN	1,660	626	1,110 EN	648	214 EN
Mercury	ND N	ND	0.23 N	ND	0.44 N	ND N	0.14 B	0.39 N	0.40
Nickel	ND	15.2 BN	13.0 B	9.6 BN	158	ND	95.0 N	ND	12.9 BN
Potassium	6,280	4,320 B	17,800	16,800	16,900	5,130	12,900	209,000	161,000
Selenium	ND	ND NW	ND	1.2 BNW	ND W	ND W	ND NW	ND W	ND N
Silver	ND	ND N	ND NW	ND N	ND	ND	ND N	3.7 B	ND N
Sodium	84,700	40,500	32,000	34,300	20,100	19,300	21,500	531,000	979,000 E
Thallium*	ND NW	ND N	ND	ND N	1.5 B	ND N	ND NW	11.0 B	ND NW
Vanadium	ND	3.7 B	ND	9.0 B	234	ND	127	7.6 B	7.6 B
Zinc	104	150	64.8	33.5	470	3.1 B	291	172	244
Cyanide	ND	ND	ND	ND	ND	NR	ND	ND	ND

Note: Numbers in bold exceed objectives

NR - Not analyzed

B - Value is less than the contract required detection limit but greater than the instrument detection limit

E - Estimated value

N - Spiked sample recovery is not within control limits

W - Post digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance

GV - Guidance value

ND - Not detected at analytical detection limit

NS - No standard

SA - Value determined by the method of standard addition

(m) - Iron and manganese not to exceed 500 µg/L

+ - Correlation coefficient for the MSA is <0.995

* - Thallium results are likely biased low due to low matrix spike recovery; actual concentrations may exceed the detection limit

TABLE 5-3 (Page 5 of 5)

Originally Table 4-19 (February 1993 Phase II Investigation Report)

GROUNDWATER DATA SUMMARY (JULY, SEPTEMBER, DECEMBER 1992)

CONEOISON - ECHO AVENUE

PARAMETER	EAMW-5 Jul-92	EAMW-5 Sep-92	EAMW-6 Jul-92	EAMW-6 Sep-92	EAMW-7 Jul-92	EAMW-7 Sep-92	FIELD BLANK Jul-92	FILED BLANK Sep-92	NYSDEC CLASS GA STANDARDS
METALS (µg/L)									
Aluminum	216	32.0 B	4,880	8,480	5,080	7,330	ND	11.1 B	NS
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	3.0 GV
Arsenic	ND W	ND NW	ND	ND N	ND	ND N	ND	ND N	25
Barium	127 B	146 B	114 B	166 B	116 B	153 B	ND	ND	1,000
Beryllium	4.1 B	3.9 B	ND	1.0 B	ND	1.2 B	ND	ND	3.0 GV
Cadmium	ND	ND N	ND	ND N	3.3 B	3.0 BN	ND	ND N	10
Calcium	257,000	231,000	51,900	58,400	52,100	57,200	75.0 B	53.8 B	NS
Chromium	ND	ND	9.2 B	20.7	14.4	18.0	ND	ND	50
Cobalt	ND	ND N	ND	ND N	ND	ND N	ND	ND N	NS
Copper	15.3 B	10.7 B	19.6 B	24.0 B	18.6 B	20.9 B	ND	ND	200
Iron	436	83.4 BN	7,610	13,000 N	8,110	11,000 N	ND	ND N	300 (m)
Lead	ND NWR	ND W	2.2 BNR	5.1	2.8 BNR	4.5	ND NR	ND	25
Magnesium	773,000	649,000	17,800	19,900	17,700	19,900	ND	118 B	35,000 GV
Manganese	6.0 B	ND EN	559	538 EN	595	449 EN	ND	ND EN	300 (m)
Mercury	ND N	ND N	ND	ND	ND	ND N	ND	ND	2.0
Nickel	ND	7.3 BN	ND	14.9 BN	18.3 B	21.2 BN	ND	ND N	NS
Potassium	252,000	189,000	7,050	9,020	7,230	8,280	ND	73.6 B	NS
Selenium	ND W	4.5 BN	ND	1.1 BN	ND	1.4 BN	ND W	ND N	10
Silver	ND	ND N	ND	ND N	ND	ND N	ND	ND N	50
Sodium	6,300,000	4,990,000	97,400	102,000	98,000	101,000	40.3 B	1,160 B	20,000
Thallium*	ND N	ND NW	ND NW	ND N	ND NW	ND N	ND N	ND N	4.0 GV
Vanadium	ND	3.4 B	ND	26.7 B	ND	23.7 B	ND	ND	NS
Zinc	46	30.8	29.1	59.9	36.9	49.7	4.7 B	7.2 B	300
Cyanide	ND	ND	ND	ND	ND	ND	ND	ND	100

Note: Numbers in bold exceed objectives.

B - Value is less than the contract-required detection limit but greater than the instrument detection limit

E - Value estimated due to interference.

N - Spiked sample recovery is not within control limits

W - Post-digestion spike out of control limits; sample absorbance is less than 50% of spike absorbance.

GV - Guidance value

ND - Not detected at analytical detection limit

NS - No standard

SA - Value determined by the method of standard addition

(m) - Iron and manganese not to exceed 500 µg/L.

R - Duplicate analysis not within control limits.

* - Thallium results are likely biased low due to low matrix spike recovery; actual concentrations may exceed the detection limit

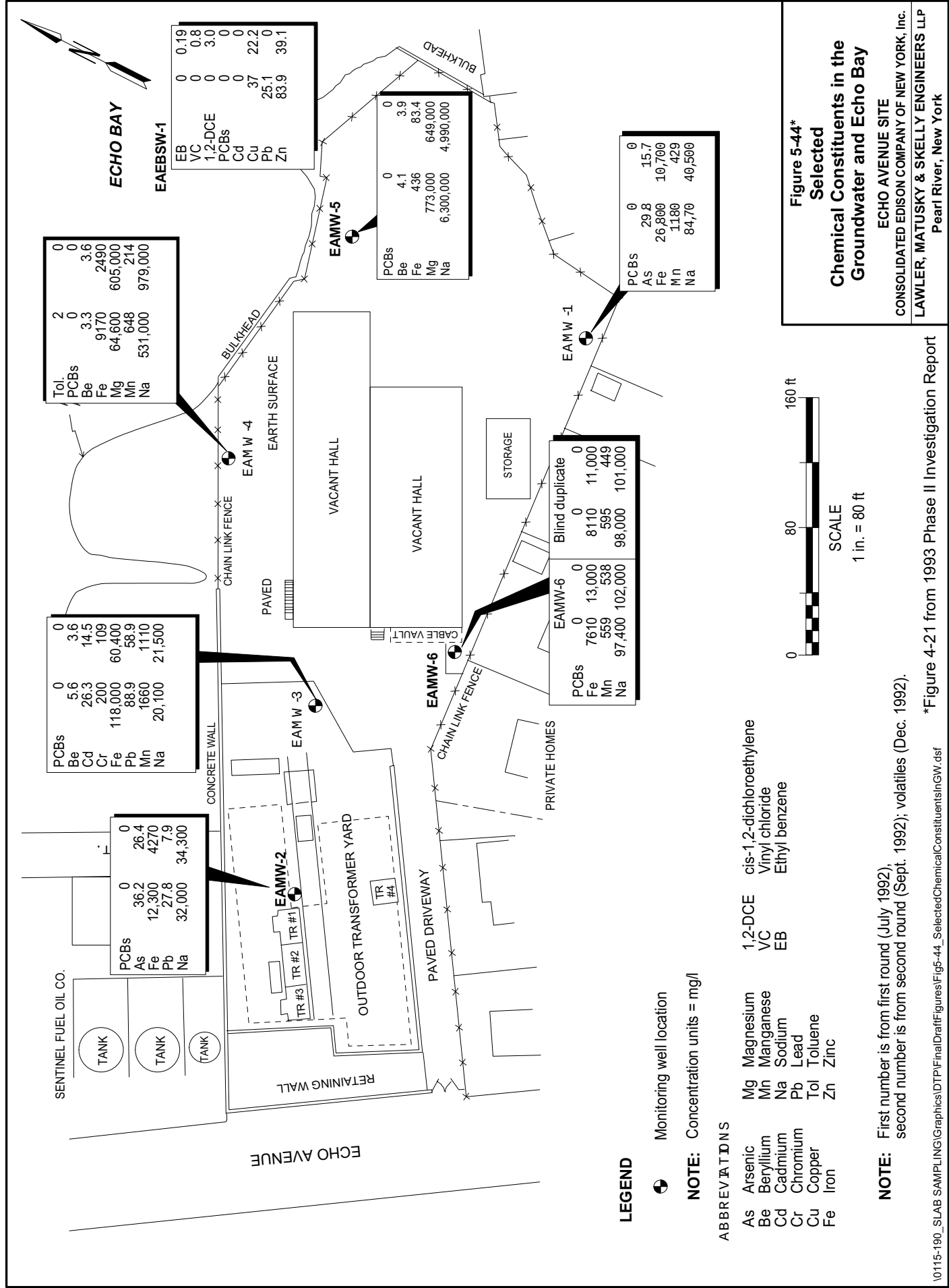


TABLE 5-4 (1 of 1)

Originally Table 5-14 (July 2003 Remediation Report Addendum)

MONITORING WELL GROUNDWATER DATA SUMMARY
(August 2002)

PARAMETER	EAMW-1	EAMW-4	EAMW-8 (Blind Duplicate of EAMW-4)	Trip Blank	NYSDEC CLASS GA GROUNDWATER STANDARD ^a
VOLATILE ORGANICS (ug/L)	ND	ND	ND	ND	-
Tentatively Identified Compounds	ND	ND	ND	ND	-
SEMIVOLATILE ORGANICS (ug/L)					
bis(2-Ethylhexyl)phthalate	2 j	4 j	4 j	NR	5
Tentatively Identified Compounds					
Caprolactam	19 nj	69 nj	52 nj	NR	NS
Unknown	14 j	ND	ND	NR	NS
PESTICIDES (ug/L)	ND	ND	ND	NR	-
PCBs (ug/L)^b	ND	ND	ND	NR	0.09
METALS (ug/L)^c					
Aluminum	378 NJ/17.4 BNJ	115 BNJ/ND NJ	63.6 BNJ/ND NJ	NR	NS
Antimony	4 BJ/ND J	5.7 BJ/ND J	3.8 BJ/ND J	NR	3
Arsenic	18.6 J/ND J	34.8 J/ND J	26.5 J/ND J	NR	25
Barium	94.5 BNJ/41.5 BNJ	113 BNJ/81.8 BNJ	105 BNJ/75 BNJ	NR	1,000
Beryllium	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	3 GV
Cadmium	ND J/ND J	ND J/ND J	ND J/ND J	NR	5
Calcium	21,100 J/19,400 J	240,000 J/238,000 J	213,000 J/215,000 J	NR	NS
Chromium	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	50
Cobalt	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	NS
Copper	38 NJ/9.1 BNJ	18.3 BNJ/2.3 BNJ	16 BNJ/2.3 BNJ	NR	200
Iron	25,200 NJ/337 NJ	29,400 NJ/88.9 BNJ	24,500 NJ/579 NJ	NR	300 ^d
Lead	19.2 NJ/ND NJ	10.4 NJ/ND NJ	5.8 BNJ/ND NJ	NR	25
Magnesium	5,730 J/5,640 J	602,000 J/613,000 J	558,000 J/638,000 J	NR	35,000 GV
Manganese	246 NJ/149 NJ	771 NJ/389 NJ	628 NJ/265 NJ	NR	300 ^d
Mercury	ND J/ND J	ND J/ND J	ND J/ND J	NR	0.7
Nickel	9.7 BNJ/4.6 BNJ	3.2 BNJ/2.3 BNJ	2.4 BNJ/2.3 BNJ	NR	100
Potassium	5,630 EJ/5,000 EJ	254,000 EJ/270,000 EJ	269,000 EJ/282,000 EJ	NR	NS
Selenium	ND J/ND J	9.4 BJ/ND J	ND J/ND J	NR	10
Silver	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	50
Sodium	15,600 J/15,700 J	4,940,000 J/5,270,000 J	5,110,000 J/5,310,000 J	NR	20,000
Thallium	ND NJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	0.5 GV
Vanadium	12.6 BNJ/ND NJ	ND NJ/ND NJ	ND NJ/ND NJ	NR	NS
Zinc	216 NJ/67.1 NJ	33.1 BNJ/ND NJ	24.2 BNJ/ND NJ	NR	2,000 GV
Cyanide	ND/NR	5.3 B/NR	ND/NR	NR	200.0

Note : Numbers in bold exceed groundwater standards or guidance values.

- All samples analyzed by Mitkem.

NR - Not analyzed.

ND - Not detected at analytical detection limit.

GV - Guidance value.

NS - No standard.

J - Estimated concentration; compound present below quantitation limit.

J - Estimated concentration due to matrix effect on recovery of target analytes.

n - presumptive evidence of a compound (used only for TICs).

B - Value is less than the contract-required detection limit but greater than the instrument detection limit.

N - Spike sample recovery is not within control limits.

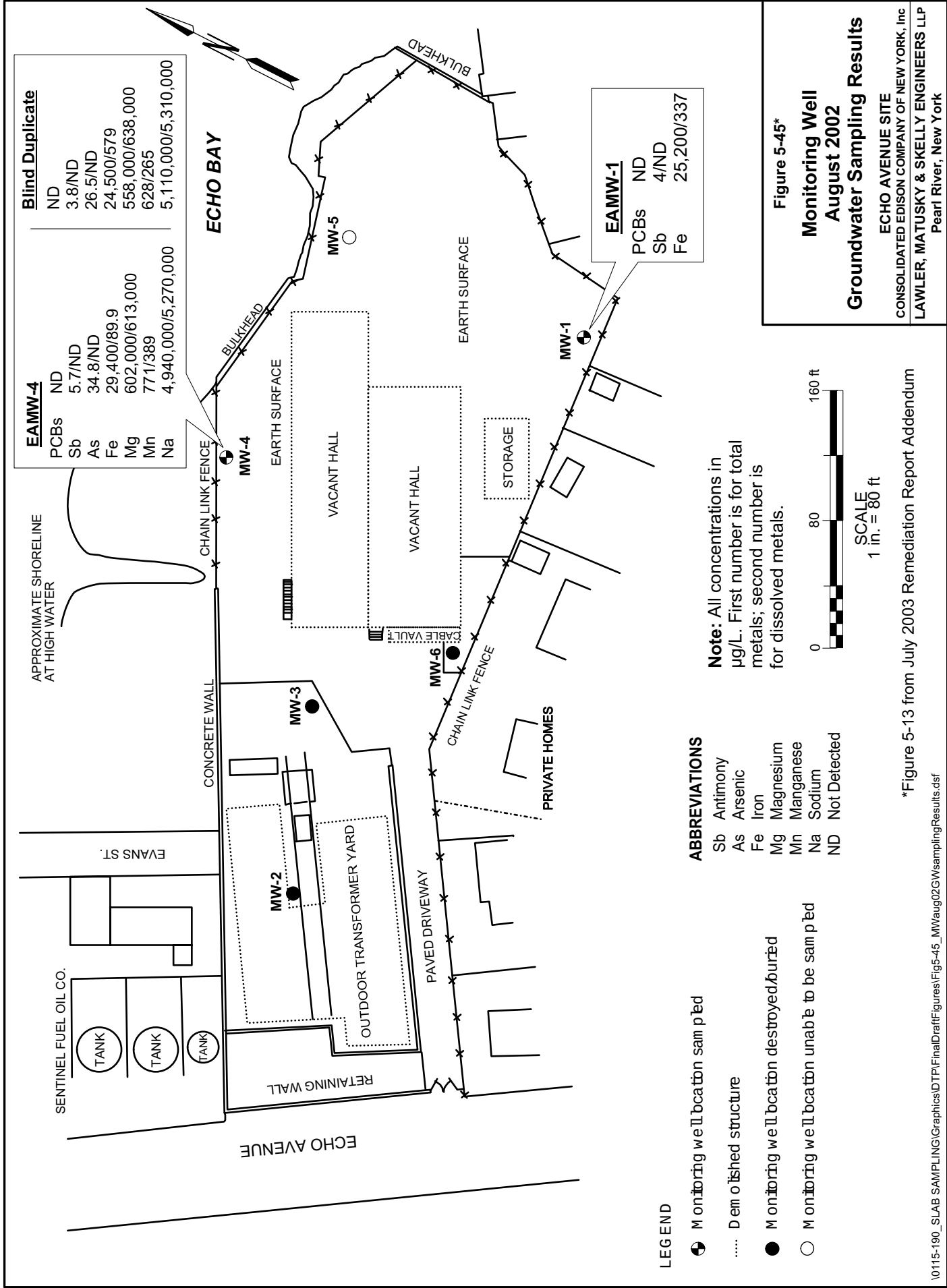
E - Value estimated due to interference.

- From NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitation, June 1998.

- PCBs analyzed by low-level method (detection limit of 0.05 ug/L).

- First value is for total metal, second value is for dissolved metal.

- Iron and Manganese not to exceed 500 ug/L.



*Figure 5-13 from July 2003 Remediation Report Addendum

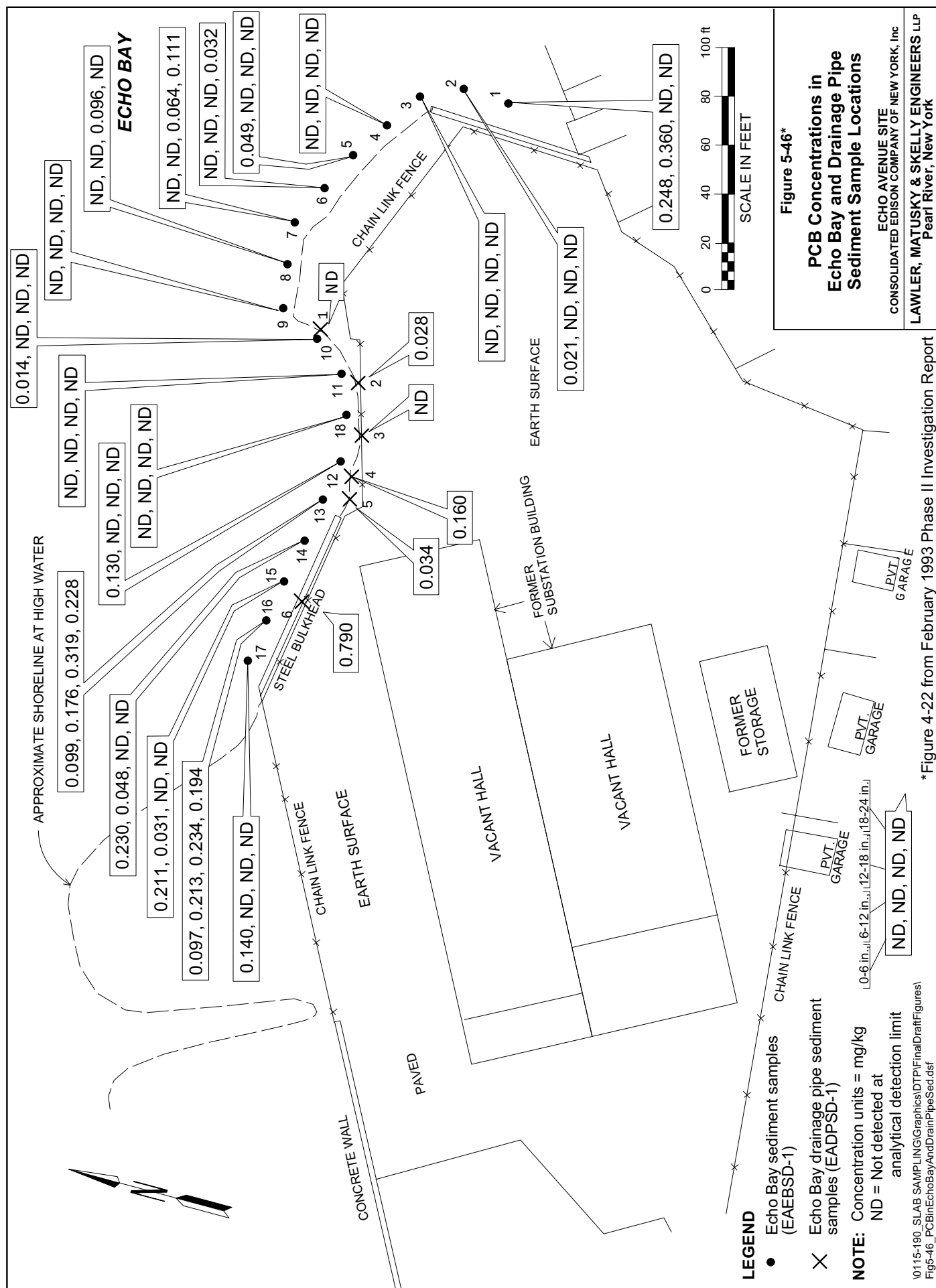
5.3 MUDFLAT SOIL AND SEDIMENT

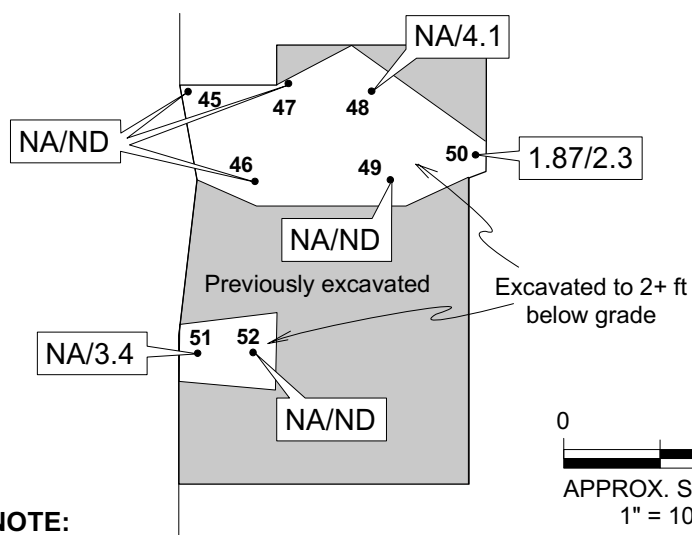
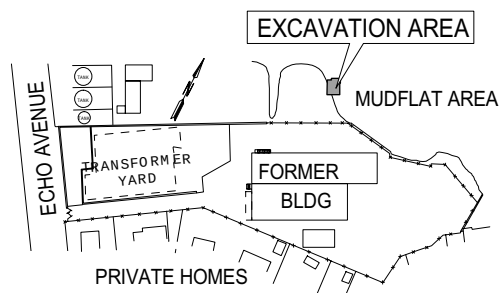
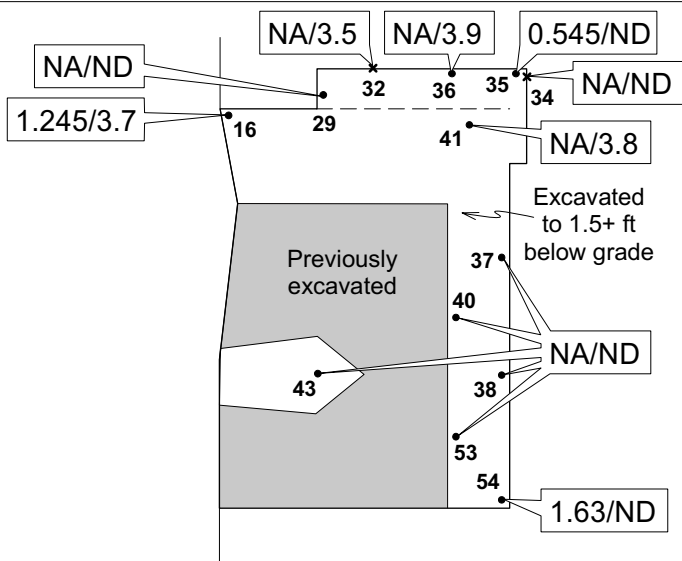
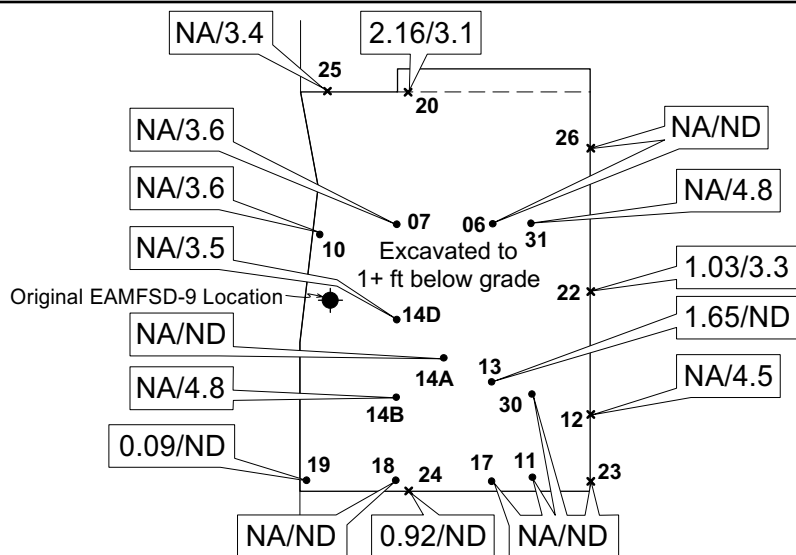
As part of the Phase II Investigation, 18 core samples were collected from the eastern edge of the property to approximately the end of the bulkhead. The two foot cores were split into four samples with each sample representing a six-inch interval. In addition, sediment samples were collected from inside the drainpipes that discharge to Echo Bay. The results from these sampling events are provided on Figure 5-46, formerly Figure 4-22 taken from HDR/LMS' 1993 Phase II Investigation report. The results show no samples above 1 mg/kg of PCBs were found. Soil and sediment samples were collected in and around the mudflat area of Echo Bay in 1995. The results were reported on in a document dated April 1996 entitled *Report on Sampling Soil and Sediment in Mudflat Area Adjacent to Echo Avenue Site* (the "April 1996 Mudflat Report") dated April 1996 (Ref. 9, Appendix A of this Report). One sample, EAMFSD-9 (see Figure 5-47 for location) had 232 mg/kg of PCBs. As a consequence, NYSDEC requested that all PCBs >5 mg/kg be removed from the mudflat sediment (Ref. 12, Appendix A of this Report).

In addition, NYSDEC requested that three of the core samples collected in 1992 (1, 13, and 16) be resampled and sediment cores be collected from the sediment just beneath the six drainpipes that discharge to Echo Bay. These results were reported on in the April 1996 Revised Report (Ref. 8, Appendix A of this Report). The data are shown on Figure 4-1 of this report and show three samples with PCBs greater than 1.0 mg/kg. Two of the resampled core samples, EAEBSD-13A and EAEBSD-16A, had 1.21 and 1.94 mg/kg, respectively in the 0-2 ft interval, and one sediment sample collected below the discharge point of drain pipe EADP-5 (EADPOSD-5), had 1.11 mg/kg in the 0-6 in. interval.

The remediation plan for the mudflat was described in the July 1996 Work Plan and included a pre-remediation delineation conducted in October 1996. The actual remediation was conducted by OHM in the spring of 1998 with the removal of approximately 30 yd³ of contaminated sediment that had PCBs above 5 mg/kg. Figure 5-47, formerly Figure 7-10 from the June 2001 Remediation Report shows the remaining PCB levels in the mudflat area after the 1998 remediation was completed. Figure 5-47 also shows the location of the original high PCB sample location, EAMFSD-9. The removed sediment was placed in a rolloff, mixed with Portland cement, and transferred off-site for disposal. The excavated area was allowed to fill in naturally from tidal cycle activities.

In 2001 NYSDEC requested that Con Edison remove all sediment and soil in the mudflat area that exceeded 1 mg/kg of PCBs. This work was conducted by TRC in 2003 and 2004 as described in their RAR (Ref. 22, Appendix A of this document). The excavated soil and sediment was staged in a lined area where corn cob husk was mixed as an additive to absorb any liquids. TRC shipped a total of 1,100 tons of stabilized soil and sediment off-site. The final





Legend

- Floor sample
- × Wall sample

1.87/2.3 Outside lab (H2M) results/
Mobile lab (STL) results
PCB concentration (mg/kg)

NA Not analyzed
ND Not detected at
analytical detection limit

NOTE: Additional excavation was
conducted in this area by
TRC (see Figure 5-48)

NOTE:

For sample ID all sample numbers
are prefixed with MFE- e.g. **MFE-01**

*Figure 7-10 from
June 2001 Remediation Report

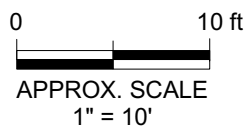


Figure 5-47*

EAMFSD-9 1998 Remediation Excavation Sample Locations and PCB Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

confirmatory PCB results are provided in Figure 5-48, formerly Figure 3-3 taken from the RAR prepared by TRC.

As described in the Section 4.6, NYSDEC requested that a sample (DECREQ) be collected and analyzed for TCL VOCs and SVOCs from the AOC-1 area (see Figure 6-3 in the following section for location). The samples were taken near sample location EAP-PE-24 (see Figure 5-48). The results are summarized in Table 5-5 from TRC's data. Because NYSDEC did not establish sediment cleanup objectives for substances other than PCBs, these results were compared to the RSCOs in TAGM 4046. This comparison indicates that five SVOCs exceeded their RSCOs: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene. All other TCL VOCs and SVOCs not shown on Table 5-5 were not detected. All sediments exhibiting visual staining or a fuel oil type odor were excavated during the remediation activities.

After the remediation was completed, the excavated area was backfilled with a mixture of clean, certified top soil and sand.

As mentioned previously in Section 4.7, the remediation activities conducted in the mudflat area by TRC in 2003 and 2004 did not address three sample locations (see Figure 4-1 of this report for locations) along the shoreline that contained PCB concentrations between 1 and 2 mg/kg based on results from sediment samples collected in 1995 by HDR/LMS. These sample locations were resampled in January 2007 to determine the current concentrations of PCBs at these locations. The results (see Table 4-7 of this report) of the resampling activity indicate these locations meet the PCB criteria of <1 mg/kg. Therefore, the mudflat area requires no additional remediation activities.

6.0 SUMMARY AND CONCLUSIONS

Table 6-1 summarizes the figures and tables presented in this report that were originally included in other reports prepared for Con Edison on the Echo Avenue site. The table includes the figure/table number in this report, the report where the figure/table was originally found, the figure/table number in the previous report, the page number where the figure/table was found in the previous report, and the page number of the pdf of the electronic version of the previous reports submitted under separate cover to the NYSDEC and NYSDOH.

Figure 6-1, formerly Figure 1-3 from the July 2003 Remediation Report Addendum, summarizes the overall remediation conducted at the Echo Avenue Site and adjacent properties from 1997 to 2003. Plate 1, located in the folder in the back of this report, has been specifically developed for this summary report to show the remediation areas on the property, the approximate depth of the

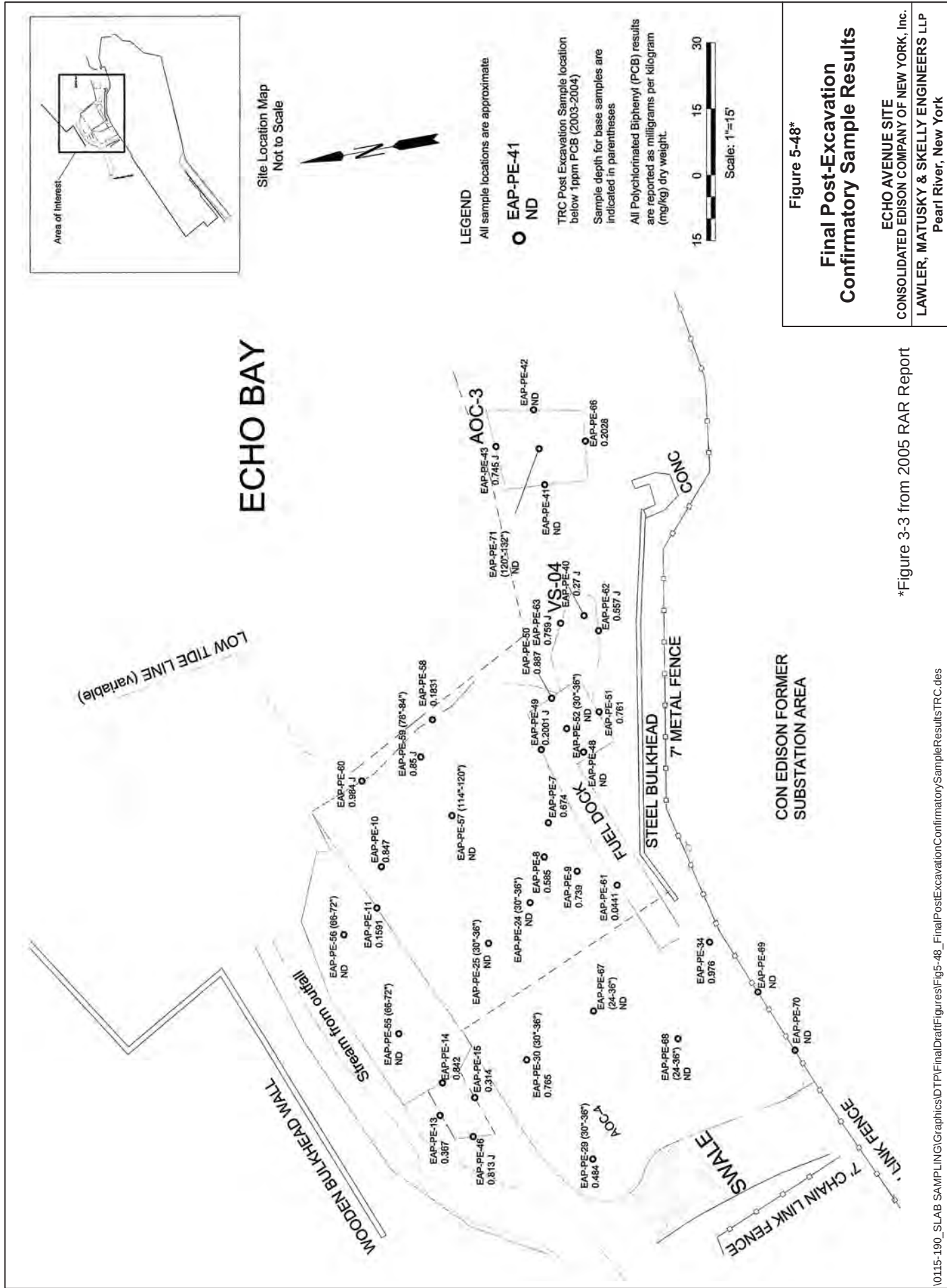


Figure 5-48*

Final Post-Excavation Confirmatory Sample Results

ECHO AVENUE SITE
CONSOLIDATED EDISON COMPANY OF NEW YORK, Inc.
LAWLER, MATUSKY & SKEELLY ENGINEERS LLP
Pearl River, New York

*Figure 3-3 from 2005 RAR Report

**TABLE 5-5
DEC REQ
SEDIMENT DATA SUMMARY**

PARAMETER	DEC REQ	RECOMMENDED SOIL CLEANUP OBJECTIVE (b)
VOLATILE ORGANICS (mg/kg)		
Acetone	0.0767	0.2
Ethyl benzene	0.0042	5.5
Xylene (total)	0.013	1.2
SEMIVOLATILE ORGANICS (mg/kg)		
Acenaphthene	0.916 j	50.0 ***
Anthracene	1.79 j	50.0 ***
Fluoranthene	14.0	50.0 ***
Fluorene	1.06 j	50.0 ***
Pyrene	14.5	50.0 ***
Benzo(a)anthracene	5.6	0.224 or MDL
Chrysene	7.08	0.4
bis(2-Ethylhexyl)phthalate	12.7	50.0 ***
Benzo(b)fluoranthene	7.83	1.1
Benzo(k)fluoranthene	4.71	1.1
Benzo(a)pyrene	5.7	0.061 or MDL
Indeno(1,2,3-c,d)pyrene	3.13	3.2
Benzo(g,h,i)perylene	3.7	50.0 ***
Phenanthrene	6.97	50.0 ***

Note : Numbers in bold exceed objectives.

: Results from Accutest Laboratories

*** - As per TAGM #4046, Total VOCs < 10 ppm.,
total SVOCs < 500 ppm. And individual SVOCs < 50 ppm.

(b) - NYSDEC Division Technical and Administrative Guidance Memorandum (TAGM), 1/94.

j - Indicates an estimated value.

Table 6-1 (Page 1 of 2)

SUMMARY REPORT FIGURE & TABLE CROSS REFERENCE INFORMATION
CON EDISON - ECHO AVENUE

Remedial Cleanup Summary Report Figure No.	Previous Report Title (where Figure or Table was presented)	Previous Report Figure No.	Following Page No. ¹	Electronic File Page No. ²	Remedial Cleanup Summary Report Figure No.	Previous Report Title (where Figure or Table was presented)	Previous Report Figure No.	Following Page No. ¹	Electronic File Page No. ²
1-1	EAS-RR-Jun 01	1-1	1-1	21	5-23	EAS-RR-Jun 01	7-21a	7-24	482
1-2	EAS-RR-Jun 01	1-2	1-1	22	5-24	EAS-RR-Jun 01	7-23	7-27	499
1-3	EAS-RR-Jun 01	6-22	6-29	172	5-25	EAS-RR-Jun 01	7-21b	7-24	483
4-1	RSRRA2-Apr 96	4-5	4-3	36	5-26	EAS-RR-Jun 03	5-10	5-5	91
5-1	EAS-RR-Jun 01	4-1	4-1	32	5-27a-d	EAS-RR-Jun 01	7-22a-d	7-25	492-495
5-2	EAS-RR-Jun 01	5-1	5-1	64	5-28	EAS-RR-Jun 01	7-24	7-27	501
5-3	EAS-RR-Jun 01	5-2	5-1	65	5-29	EAS-RR-Jun 01	7-16	7-16	448
5-4	EAS-RR-Jun 01	5-7	5-1	70	5-30	EAS-RR-Jun 01	7-14a	7-15	442
5-5	EAS-RR-Jun 01	5-8	5-1	71	5-31	EAS-RR-Jun 03	5-8	5-5	88
5-6	EAS-RR-Jun 01	5-9	5-1	72	5-32	EAS-RR-Jun 03	5-2	5-2	72
5-7	EAS-RR-Jun 01	5-10	5-1	73	5-32	EAS-FOSR-Aug 02	3	3	10
5-8	EAS-RR-Jun 01	7-1	7-3	341	5-33	EAS-RR-Jul 03	5-3	5-2	73
5-9	EAS-RR-Jun 01	7-2	7-3	345	5-33	EAS-FOSR-Aug 02	3	3	11
5-10	EAS-RR-Jun 01	7-3	7-4	349	5-34	EAS-RR-Jul 03	5-1	5-1	68
5-11	EAS-RR-Jun 01	7-4a-m	7-6	361-373	5-35	EAS-RR-Jun 01	7-25	7-28	503
5-11	EAS-RR-Jul 03	5-12	5-6	95	5-36	EAS-RR-Jul 03	5-6	5-4	83
5-12	P2I-EAS-Feb 93	4-20	4-17	133	5-37	EAS-RR-Jul 03	5-7	5-4	85
5-13	P2I-EAS-Feb 93	4-18	4-14	121	5-38	EAS-RR-Jul 03	5-9	5-5	90
5-14	P2I-EAS-Feb 93	4-19	4-17	132	5-39	EAS-RR-Jul 03	5-11	5-6	93
5-15	EAS-RR-Jun 01	7-5a-g	7-8	387-393	5-40	P2I-EAS-Feb 93	3-2	3-2	24
5-16	EAS-RR-Jun 01	7-6a-e	7-9	399-403	5-41	P2I-EAS-Feb 93	3-3	3-2	25
5-17	EAS-RR-Jun 01	7-7	7-9	405	5-42	P2I-EAS-Feb 93	3-4	3-2	26
5-18	EAS-RR-Jun 01	7-8a-b	7-10	412-413	5-43	P2I-EAS-Feb 93	3-5	3-2	27
5-19	EAS-RR-Jul 03	5-5	5-3	80	5-44	P2I-EAS-Feb 93	4-21	4-20	142
5-20	EAS-RR-Jun 01	7-9	7-11	417	5-45	EAS-RR-Jul 03	5-13	5-7	102
5-21	RSRRA2-Apr 96	4-1	4-1	15	5-46	P2I-EAS-Feb 93	4-22	4-26	156
5-22	EAS-RR-Jun 01	6-61	6-72	284	5-47	EAS-RR-Jun 01	7-10	7-12	422
5-23	EAS-RR-Jun 01	7-21a	7-24	482	5-48	TRC-RAP-Feb 05	3-3	5-1	52
5-24	EAS-RR-Jun 01	7-23	7-27	499	6-1	EAS-RR-Jul 03	1-3	1-5	15
5-25	EAS-RR-Jun 01	7-21b	7-24	483					

EAS-RR-Jun 01 Echo Avenue Site Remediation Report - June 01

RSRRA2-Apr 96 Report on Sampling Required in Revised Addendum No. 2 - April 96

EAS-RR-Jul 03 Echo Avenue Site Remediation Report Addendum - July 03

P2I-EAS-Feb 93 Phase II Investigation At Echo Avenue Site - February 93

RSRRA2-Apr 96 Second Report on Sampling Required in Revised Addendum No. 2 - April 96

EAS-FOSR-Aug 02 Echo Avenue Site Fuel Oil Spill Report - August 02

TRC-RAP-Feb 05 TRC Remediation Action Report For The Echo Avenue Project - February 2005

1 - Figure or Table follows the numbered text page in the previous report (figure and table pages are not numbered).

2 - Actual Figure or Table page number(s) in electronic pdf versions provided

Table 6-1 (Page 2 of 2)

SUMMARY REPORT FIGURE & TABLE CROSS REFERENCE INFORMATION
CON EDISON - ECHO AVENUE

Remedial Cleanup Summary Report Table No.	Previous Report Title (where Figure or Table was presented)	Previous Report Table No.	Following Page No.	Electronic File Page No. ²	Remedial Cleanup Summary Report Table No.	Previous Report Title (where Figure or Table was presented)	Previous Report Table No.	Following Page No.	Electronic File Page No. ²
4-1	EAS-RR-Jun 01	6-3	6-16	135	5-1	P2I-EAS-Feb 93	4-18	4-17	125-131
4-2	EAS-RR-Jun 01	6-4	6-25	164	5-1a	RSRRA2-Apr 96	4-2	4-1	30-32
4-3	EAS-RR-Jun 01	6-5	6-38	195	5-2	P2I-EAS-Feb 93	4-17	4-14	116-120
4-4	EAS-RR-Jun 01	6-8	6-40	208-209	5-3	P2I-EAS-Feb 93	4-19	4-20	137-141
4-5	EAS-RR-Jun 01	7-17	7-17	450-451	5-4	EAS-RRRA-Jul 03	5-14	5-7	101
4-6	EAS-RR-Jun 01	6-16	6-69	275-276	5-5	TRC-RAP-Feb 05	-	-	-
4-7	-	-	-	-	-	-	-	-	-

EAS-RR-Jun 01 Echo Avenue Site Remediation Report - June 01

RSRRA2-Apr 96 Report on Sampling Required in Revised Addendum No. 2 - April 96

EAS-RRRA-Jul 03 Echo Avenue Site Remediation Report Addendum - July 03

P2I-EAS-Feb 93 Phase II Investigation At Echo Avenue Site - February 93

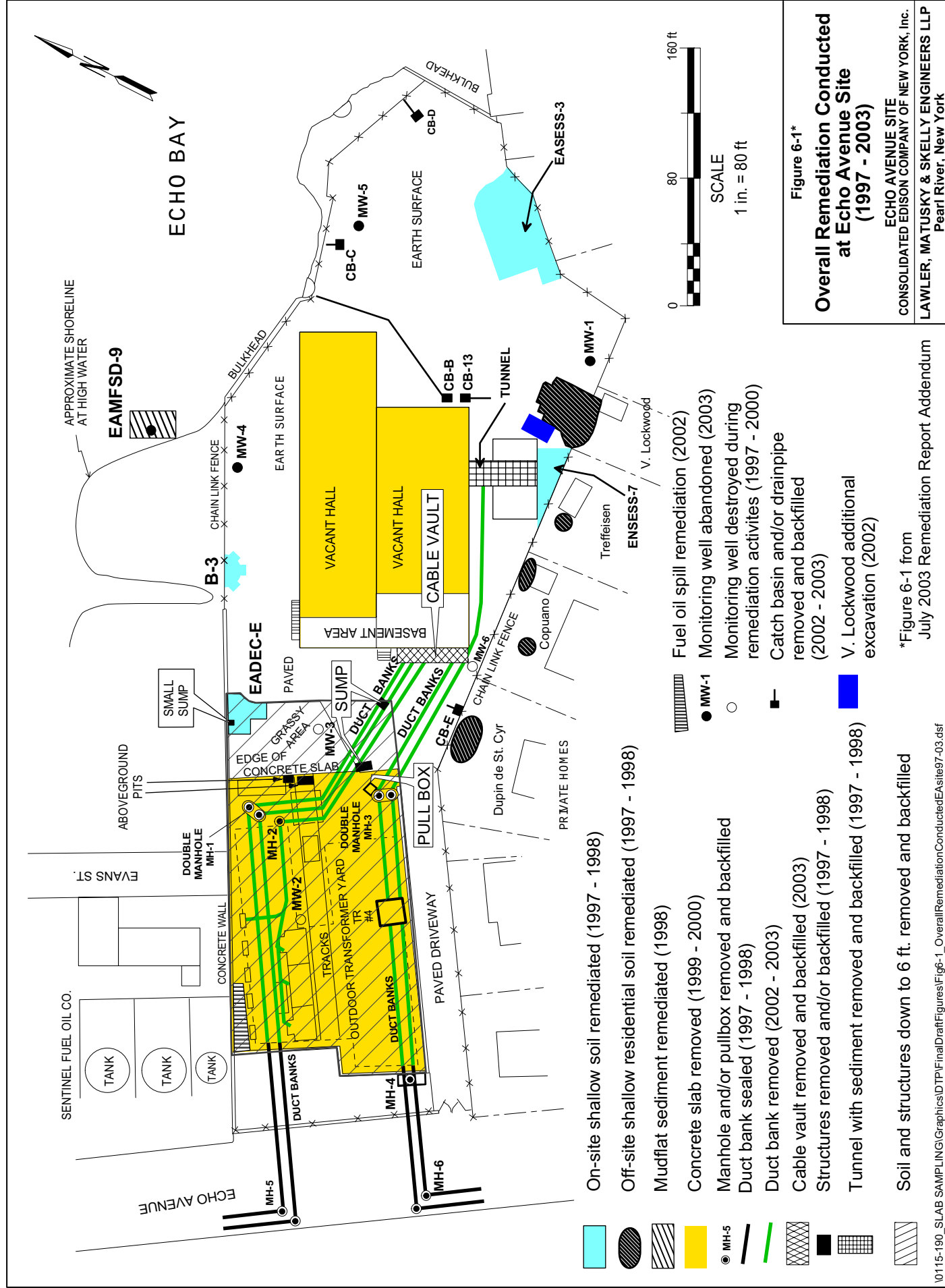
SRSRRA2-Apr 96 Second Report on Sampling Required in Revised Addendum No. 2 - April 96

EAS-FOSR-Aug 02 Echo Avenue Site Fuel Oil Spill Report - August 02

TRC-RAP-Feb 05 TRC Remedial Action Report For The Echo Avenue Project - February 2005

1 - Figure or Table follows the numbered text page in the previous report (figure and table pages are not numbered).

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*Figure 6-1 from
July 2003 Remediation Report Addendum

excavation areas, and the concentration of PCBs (≤ 1 mg/kg or ≤ 10 mg/kg) remaining on the site at each location and depth prior to any backfilling. References to the figures and tables from where the data were derived have been added to Plate 1. In addition, locations on residential properties where residual total PCB concentrations of < 1 mg/kg were found have been identified on Plate 1. All excavations were backfilled with clean certified fill material and either covered with wood chips or top soil and seed. As can be seen from information presented in Section 5 and Plate 1, the remaining PCB concentrations meet the soil cleanup objectives established by the NYSDEC for this Site.

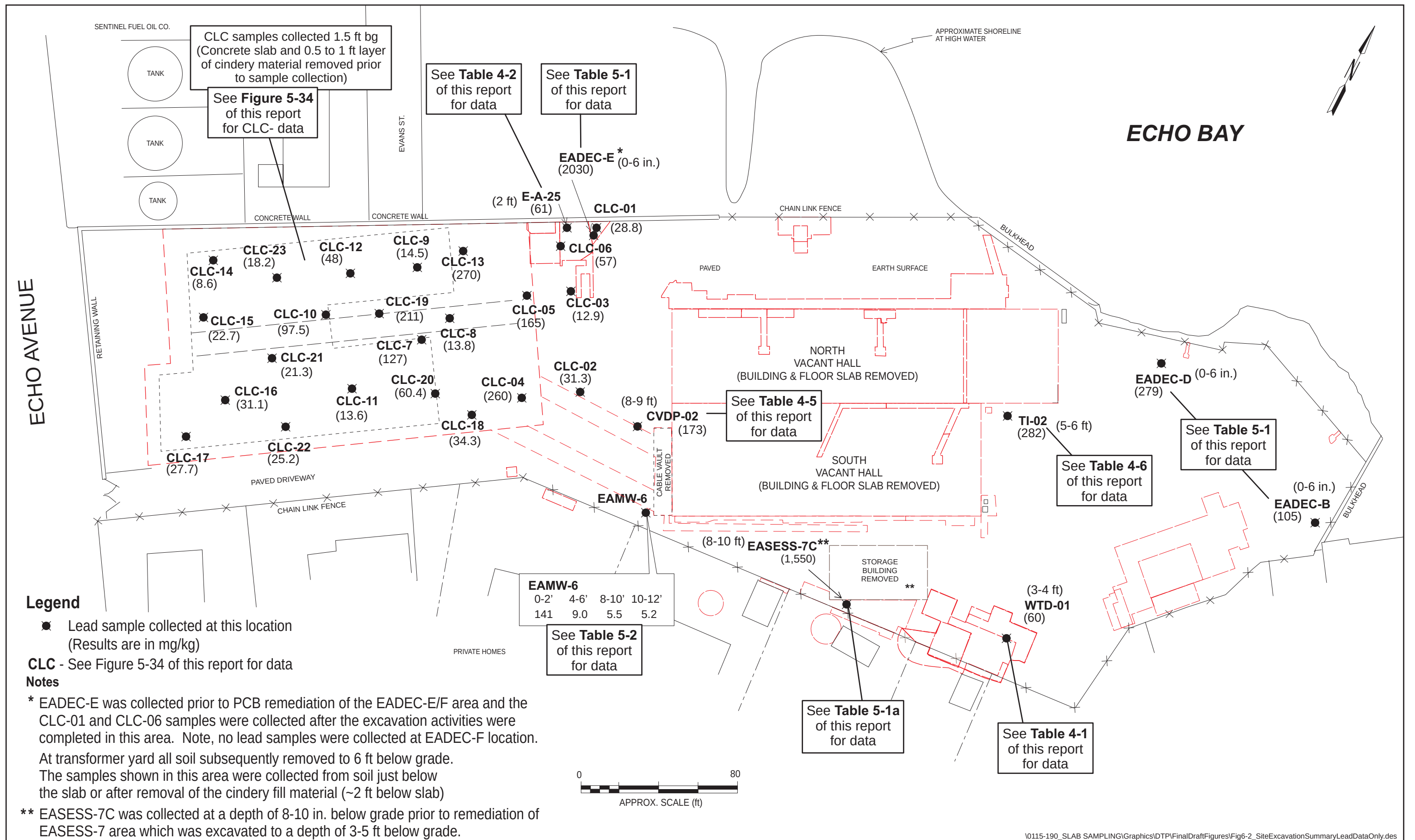
Figure 6-2 shows the lead concentrations remaining on the Site at locations where soil samples were collected for total lead analysis and show that the cleanup objective of 500 mg/kg is not exceeded on the Site. The tables and figures from which the data were derived are referenced on Figure 6-2.

Figure 6-3 shows the location and depth of samples analyzed for contaminants other than lead and PCBs and indicates which locations had exceedances of RSCOs in TAGM 4046, which RSCOs were exceeded, and the concentrations of substances that exceeded their RSCOs. Locations with TAGM 4046 RSCOs exceedances that were subsequently remediated are footnoted in Figure 6-3. In all cases where such other contaminants were detected above their RSCOs, NYSDEC did not require remediation, or NYSDEC approved backfill of that the area after the remediation for PCBs was completed, or all soil with a fuel-oil type odor was removed to the satisfaction of NYSDEC. The tables and figures from which the data were derived are referenced on Figure 6-3.

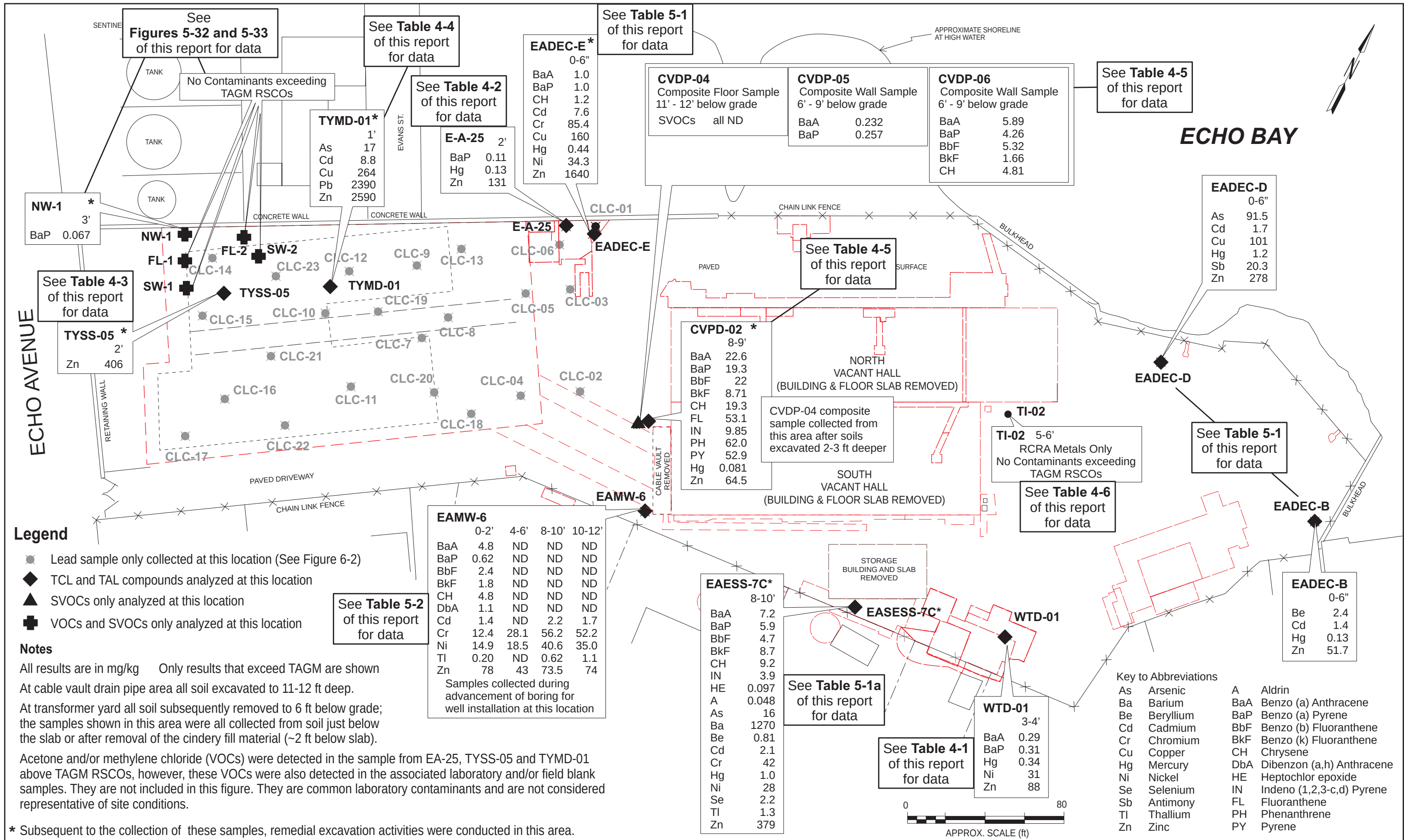
Figure 6-4 shows the remaining PCBs in the mudflat sediment and soil in Echo Bay. This figure shows the remediation areas in the mudflat conducted by TRC, the approximate depth of the excavation areas, and the concentration of PCBs remaining. All excavation areas in the mudflat were backfilled with a mix of clean certified fill material and sand. In addition, the locations of the sediment samples collected and analyzed for PCBs by HDR|LMS during previous investigations are also included in this figure. As can be seen, the remaining PCB concentrations meet the 1 mg/kg cleanup level established by NYSDEC in 2003. The tables and figures from which the data were derived are referenced on Figure 6-4.

Some structures remain on site as detailed below:

- Substation building basement and basement storage room. In 1995 these rooms were backfilled with construction debris and rubble from the floors above them.
- Substation building sub-slab structures. These include a tunnel in the former North Hall of the building and other structures in the building's former North and South Halls. The cindery fill material present in the North Hall tunnel was removed from the tunnel and



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ECHO BAY

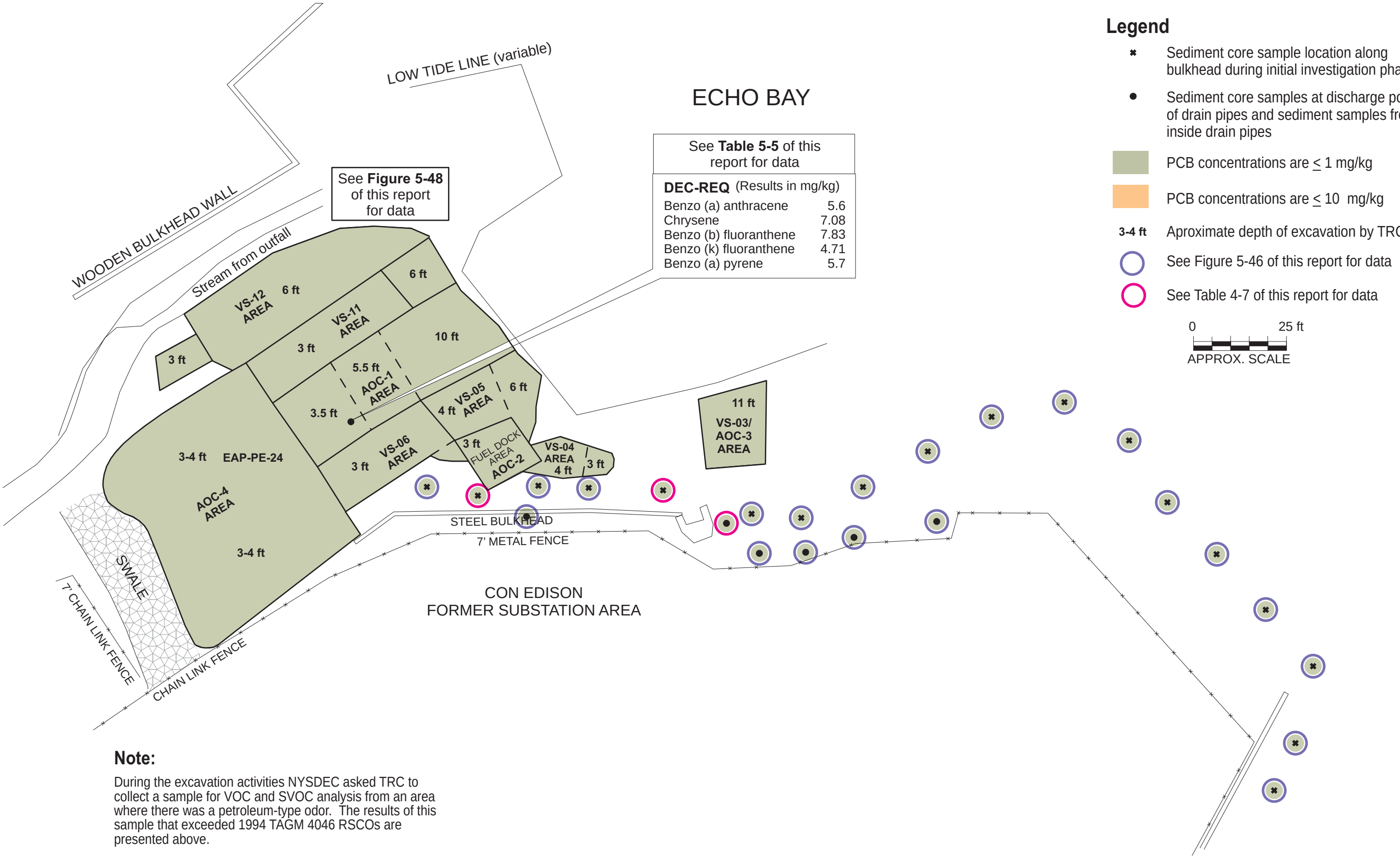
See Table 5-5 of this report for data

DEC-REQ (Results in mg/kg)	
Benzo (a) anthracene	5.6
Chrysene	7.08
Benzo (b) fluoranthene	7.83
Benzo (k) fluoranthene	4.71
Benzo (a) pyrene	5.7

Legend

- * Sediment core sample location along bulkhead during initial investigation phases
- Sediment core samples at discharge point of drain pipes and sediment samples from inside drain pipes
- PCB concentrations are ≤ 1 mg/kg
- PCB concentrations are ≤ 10 mg/kg
- 3-4 ft Aproximate depth of excavation by TRC
- See Figure 5-46 of this report for data
- See Table 4-7 of this report for data

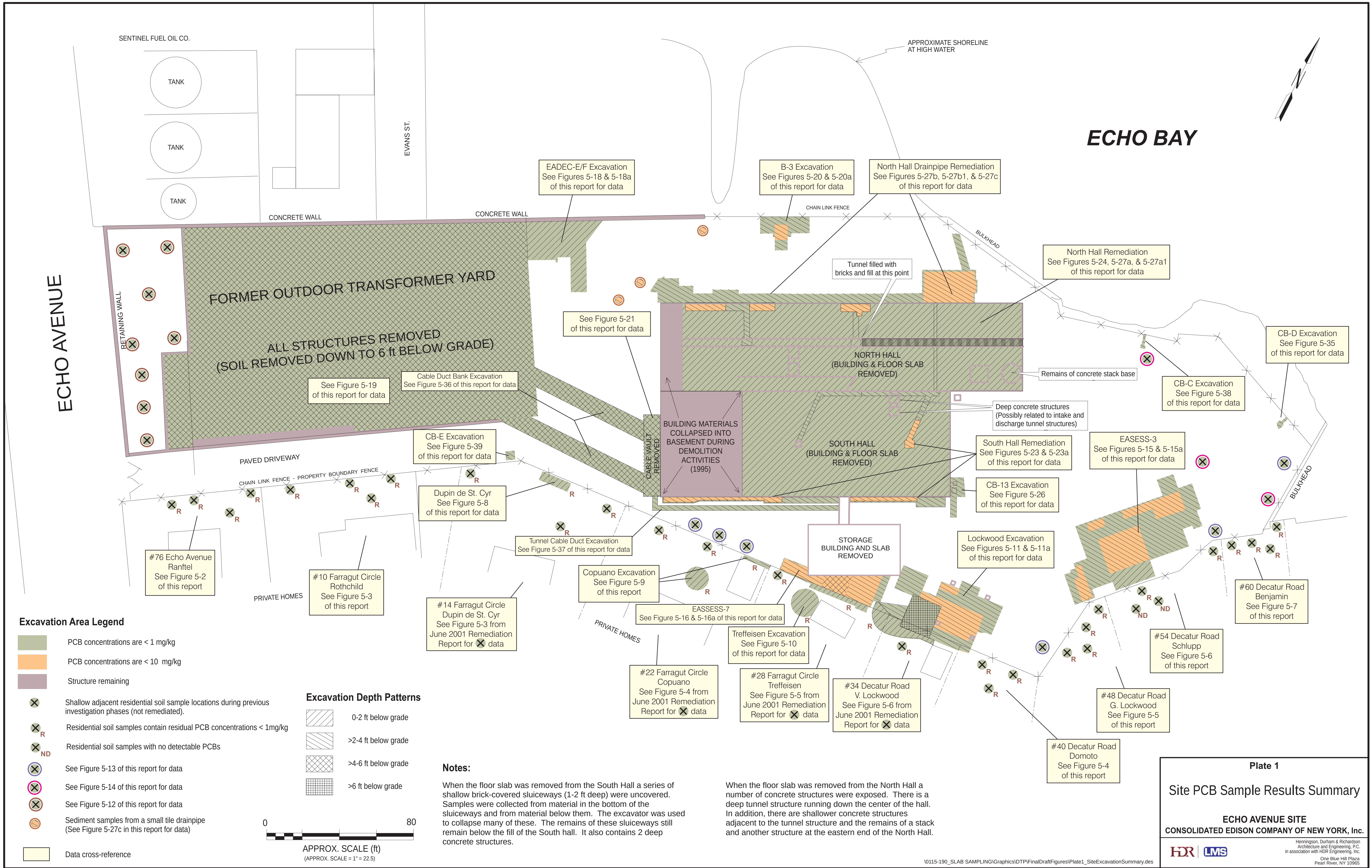
0 25 ft
APPROX. SCALE



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the tunnel was backfilled in 2000.

- Tunnel between substation and office building. The tunnel was cleaned and backfilled in 1998.
- Office building foundation wall. The office building's foundation slab was removed in 1995, but the foundation walls were left in place. Reports for prior work conducted at the Site by Con Edison indicate that there was an extension on the western end of the office building. Consequently, the foundation walls may extend out further than shown on Con Edison's available drawings for the office building.
- EASP-06. This sump was sampled and backfilled in 1998.
- CB-04 and CB-06. Catch basin CB-04 is located in the center of the former South Hall. Catch basin CB-06 is located along the north side of the former North Hall slab in the northeast corner area. A concrete meter vault is located along the outside of the foundation wall in the northwest corner area of the North Hall. These structures were not removed during the building slab removal conducted in 1999.
- Concrete drainpipe from the former CB-13 location and the tile drainpipe along Echo Bay.
- Four concrete pedestals in the area immediately adjacent to the backyard of the neighboring V. Lockwood residential property. An old insurance map from 1931 that shows the site when it was a coal-fired generating plant indicates that a 50,000 gal water tank was at this location. This map also shows a number of other areas where there could still be some structures below grade that were not encountered during the environmental investigations and remediation activities conducted at the site. There is a possibility that some of these structures and possibly other structures still remain below grade on site.
- The duct banks between the manholes on Echo Avenue and the concrete retaining wall on the western end of the site were not removed. The duct banks were cleaned and plugged on both ends and manhole MH-4 was completely filled with concrete.



APPENDIX D

EXAMPLE HEALTH AND SAFETY PLAN

AND COMMUNITY AIR MONITORING PLAN

(See Attached CD)

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name: Con Edison's Echo Ave. Site

HASP Preparer: Karen A. Wright

Address: 78 Echo Ave.

City/State: New Rochelle, New York

Job No.: 115-155

APPROVALS

Project Manager: _____

Safety Officer: _____

PROJECT PERSONNEL:

On-Site Coordinator: John Guzewich

**On-Site Health and
Safety Officer:** John Guzewich

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 24 July 1990 (revised 15 May 1996)

HAZARDOUS/SUBSTANCES (known or suspected, contaminated media or in storage container, etc.):

PCBs in soil, on concrete slab, in manholes and other structures, and in sediment.

HAZARD ASSESSMENT (toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):

See Table 1.

SITE WORK ZONES (designate exclusion zone, contamination reduction zone and support zone):

See Figure 1.

SITE ACCESS (describe procedures to control site access):

On-site HSO will keep log book which everyone will have to sign in and out from (including subcontractors and Con Edison personnel).

MONITORING PROCEDURES (If required by the Safety Officer) Monitoring the site for identity and concentration of contamination in all media:

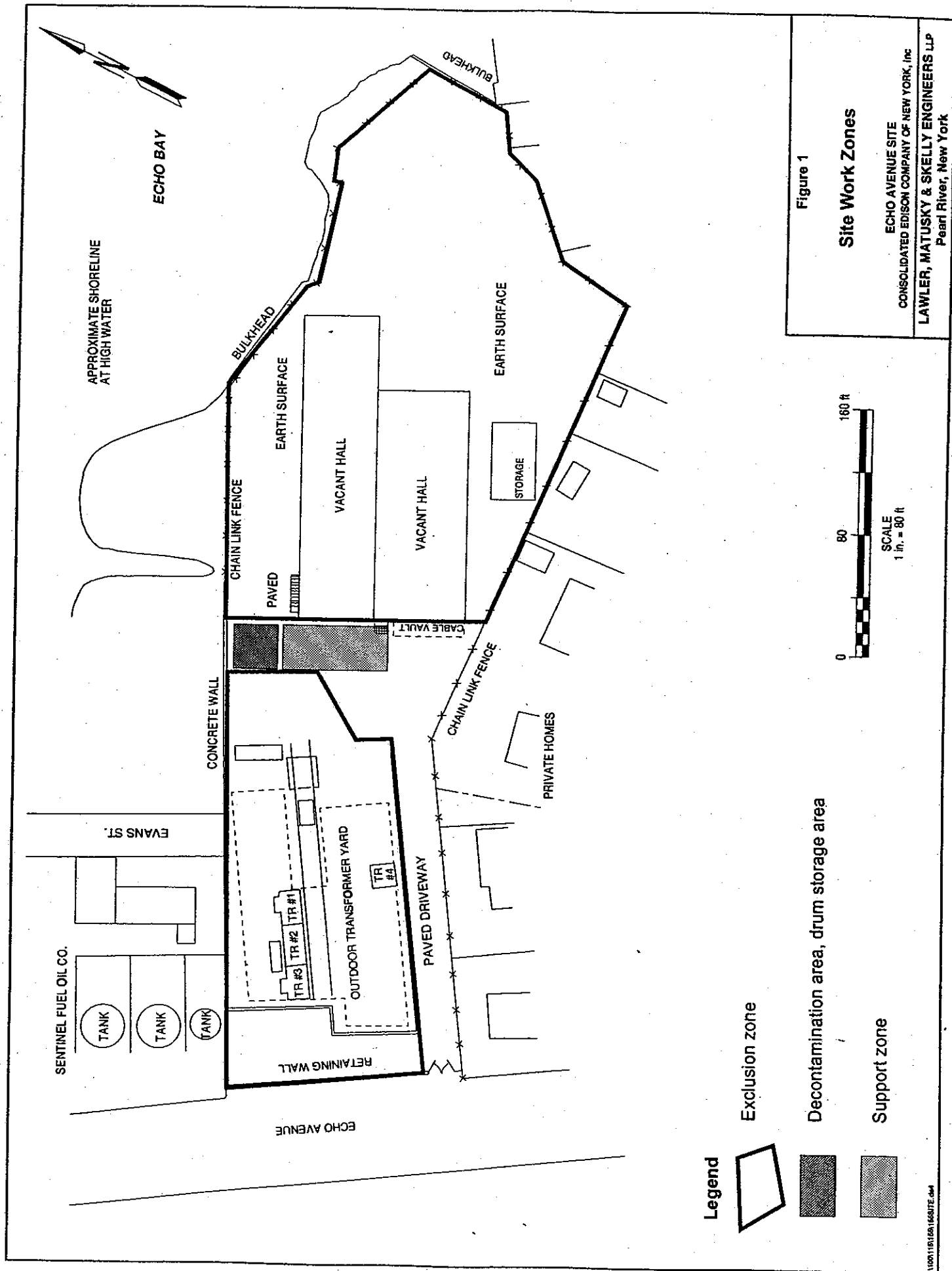
Monitor background conditions at Support Zone (See Figure 1) with HNU and/or OVA at beginning of each day. Monitor breathing zone with HNU/OVA at each work site

TABLE 1
ECHO AVENUE

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% a deg.f)	UEL (% a deg.f)	FLASH POINT TEMP. (deg.f)	VP (mmg deg.f)	VD (ev)	SOLUBIL. (%)	COOR. THRESH. (ppm)	RESP. PROT.	TOXIC EFFECTS
PCB-1248	Polychlorinated biphenyl; Aroclor; Phenochlor; Pyranol; Sovol; Inerteen; Dykanol; Chlophen	-	-	-	-	-	-	-	-	-	-	-	no	-
PCB-1260	Polychlorinated biphenyl; Aroclor; Phenochlor; Pyranol; Sovol; Inerteen; Dykanol; Chlophen	-	-	-	-	-	-	-	-	-	-	-	no	-
PCB-1242	Chlorodiphenyl (42% chlorine); Polychlorinated biphenyl; Aroclor	1 mg/m3	1 ug/m3	1 mg/m3	carcinogen	-	-	349	0.001	-	insol	-	no	Irrit eyes; chor, acne; live damage
PCB-1254	Chlorodiphenyl (54% chlorine); Polychlorinated biphenyl; Aroclor	0.5mg/m3	1 ug/m3	0.5mg/m3	carcinogen	-	-	432	0.00006	-	insol	-	no	Irrit eyes, skin; acne form derm; dark urine; jaun
PCBs	Polychlorinated biphenyls; Aroclor; Chlophen; Inerteen; Sovol; Phenochlor	-	.001mg/m3	-	-	-	-	383	-	-	-	-	-	Nau, vomit; wght loss; jaundice, edema, abd pain; liver damage

(-): Unknown.

NOTE: Under Respiratory Protection yes/no indicates whether or not a respirator can be used.



(Exclusion Zone). Breathing zone is 4 ft above the ground surface.

Medical monitoring procedures for evidence of personnel exposure i.e., analyses specific to site not covered in general LMS physical:

Not Applicable.

Personnel monitoring procedures:

Not Applicable.

DECONTAMINATION AND DISPOSAL

Decontamination Procedures (contaminated personnel, surfaces, materials, instruments, equipment, etc.):

All sampling equipment, i.e. corers, stainless steel spoons, split-spoons, etc. will be washed with Alquinox detergent, rinsed with potable water, rinsed with a suitable solvent such as Hexane, rinsed with deionized water and air dried. The drill bit will be decontaminated with hexane. All personnel will wash with soap and water after work is completed.

Disposal Procedures (contaminated equipment, supplies, disposables, washwater):

All decontamination water will be drummed and stored on site for subsequent disposal by Con Edison. All decontamination chemicals will also be stored on site in drums for subsequent disposal by Con Edison.

EMERGENCY PROCEDURES

In event of personnel exposure (skin contact, inhalation, ingestion, specific procedures for specific chemicals):

Skin Contact - Wash with soap and water.

Inhalation - Remove to fresh air, monitor for ABCs.

Ingestion - Call Poison Control Center and monitor ABCs.

In the event of personnel injury:

Check ABCs (Airway, Breathing and Circulation). Perform First Aid, if required. Contact local ambulance if professional help is needed.

In event of potential or actual fire or explosion:

Evacuate to Support Zone. HSO will check log book to determine that all personnel are accounted for before leaving site. Fire department to be contacted in case of fire.

In event of potential or actual ionizing radiation exposure:

Not Applicable.

In event of environmental accident (spread of contamination outside sites):

Stop spread of chemical as best as possible and contact LMS (Jim Morrison or Karen Wright).

EMERGENCY SERVICES (complete here or have separate list available on-site):

Emergency Medical Facility (include map or written description of route to hospital):

	<u>Location</u>	<u>Telephone</u>
New Rochelle Hospital Medical Center	Guion Place New Rochelle, NY	(914) 632-5000

See Figure 2 for route to Hospital.

Ambulance Service: 0

Fire Department:

New Rochelle Fire Dept.	90 Beaufort Place New Rochelle, NY	(914) 632-6700 911, 0
-------------------------	---------------------------------------	--------------------------

Police Department:

New Rochelle Police Dept.	80 Beaufort Place New Rochelle, NY	(914) 632-2000 911, 0
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Poison Control Center: (914) 353-1000

PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS SUBSTANCES (As Applicable):

Personnel Authorized to Enter Site (specific conditions of site would preclude most LMS trained persons from entering site and would allow only certain personnel, list here)

Not Applicable.

ALTERNATIVE WORK PRACTICES

(Describe alternative work practices or instruments not specified in this form. Indicate work practices specified in the chapter for which proposed alternative work practices will serve as substitute).

During any soil excavation activities or concrete removal activities the Contractor must use dust suppression techniques.

TASK-SPECIFIC LEVEL OF PROTECTION AND ACTION LEVELS

(attach table including specific description of protective gear and action levels to upgrade or downgrade LOP)

See Table 2.

SITE MAP

(Attach a site map. Map should be properly scaled and keyed to local landmarks).

See Figure 1.

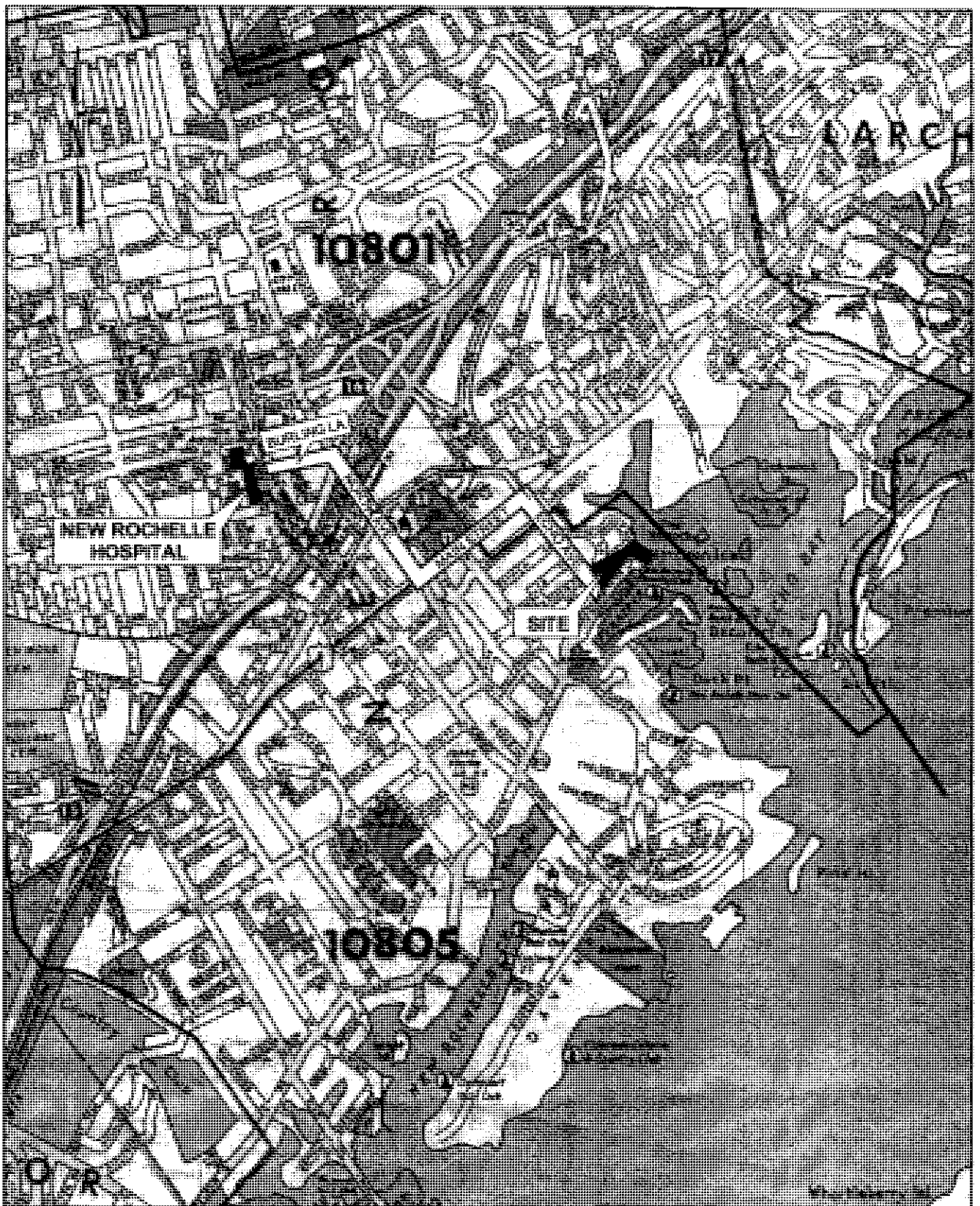


Figure 2

Route to Hospital

8000 AVENUE SITE
 CONSOLIDATED FERRON COMPANY OF NEW YORK, Inc.
 LAWLER, MATUSKY & SKELLY ENGINEERS LLP
 1000 First, New York

Map source: Hagstron Map of Lower Westchester County, 1981.

TABLE 2
TASK SPECIFIC LEVELS OF PROTECTION

<u>TASK</u>	<u>LEVEL OF PROTECTION</u>	<u>DESCRIPTION</u>
1. Soil Sampling	D	Hard Hat, Safety Glasses, Safety Shoes, Tyvek, and Latex Gloves. Upgrade to coated Tyvek or coated Tyvek apron, overboots, and Nitrile Gloves in case of contact with contaminated material.
2. Sediment Sampling	D	Overboots, Tyvek and Latex Gloves. Tyvek is needed to prevent contact with poison ivy.
3. Concrete Core Sampling	D	Hard hat, Safety Goggles, Safety Shoes, Tyvek, and Latex Gloves. ^a
4. Wipe Sampling	D	Hard hat, Safety Glasses, Safety Shoes, Tyvek, and Nitrile Gloves.
5. Subterranean Tank Investigation	D	Hard Hat, Safety Glasses, Safety Shoes, Tyvek, and Latex Gloves. Upgrade to coated Tyvek or coated Tyvek apron, overboots, and Nitrile Gloves in case of contact with contaminated material.

NOTE: In areas with known high PCB contamination use full face respirator equipped with organic cartridge filter and HEPA filter if dust levels are excessive ($> 150 \mu\text{g}/\text{m}^3$ in the breathing zone).

If HNU or OVA reading in breathing zone is greater than > 0.5 ppm above background and the source of the reading is unknown, must upgrade to Level C respiratory protection (organic vapor cartridge and HEPA filter). If readings exceed 5 ppm in the breathing zone, stop work and call LMS. Draeger tubes may be used to determine the source of the readings and to aid in the upgrade or downgrade of levels of protection.

^a Concrete core sampling in manholes requires confined space entry procedures including the issuance of a permit.

TRAINING

(Provide description of minimum training, reference OSHA Sections).

1 person 29 CFR 1910.120 e(3).

1 person 29 CFR 1910.120 e(4).

1 person Standard First Aid and CPR.

COMMUNITY AIR MONITORING PLAN/VAPOR EMISSION RESPONSE PLAN

See Attachment A.

AFFIDAVIT

All personnel who enter site must sign attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

AFFIDAVIT

I, _____, (name) of _____ (company name)
have read the Health and Safety Plan (HASP) for the Echo Ave. I have also read the LMS generic
HASP. I agree to conduct all on site work in conformity with the requirements of both HASPs. In
addition, I acknowledge that failure to comply with the designated procedures in the Health and
Safety Plans may lead to my removal from the site.

Signed _____

Date _____

ATTACHMENT A
COMMUNITY AIR MONITORING PLAN

COMMUNITY AIR MONITORING PLAN

Real-time air monitoring for volatile compounds and particulate levels at the perimeter of the exclusion zone is necessary.

The plan will include the following:

- Volatile organic compounds will be monitored daily during soil sampling at the downwind perimeter of the exclusion zone at 2 hour intervals. If total organic vapor levels exceed 5 ppm above background, sampling activities must be halted and monitoring continued under the provisions of a Vapor Emission Response Plan. All readings will be recorded and will be available for State (DEC & DOH) personnel to review.
- Particulates will be continuously monitored downwind of the exclusion zone during soil sampling with a portable particulate monitor that will have an alarm set at $150 \mu\text{g}/\text{m}^3$. If downwind particulate levels, integrated over a period of 15 minutes, exceed $150 \mu\text{g}/\text{m}^3$, then particulate levels upwind of the survey or work site will be measured. If the downwind particulate level is more than $100 \mu\text{g}/\text{m}^3$ greater than the upwind particulate level, then drilling/excavation activities must be stopped and corrective action taken. All readings with activities must be stopped and corrective action taken. All readings will be recorded and be available for State (DEC & DOH) personnel to review.

Vapor Emission Response Plan

If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the Exclusion Zone, soil sampling activities will be halted and monitoring continued. If the organic vapor level decreases below 5 ppm above background, soil sampling activities can resume but more frequent intervals of monitoring, as directed by the Safety Officer, will be conducted. If the organic vapor levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the Exclusion Zone, soil sampling activities will resume provided:

- The organic vapor level 200 ft downwind of the Exclusion Zone or half the distance to the nearest residential or commercial structure, whichever is less, is below 5 ppm over the background, and
- More frequent intervals of monitoring, as directed by the Safety Officer, are conducted.

If the organic vapor level is above 25 ppm at the perimeter of the Exclusion Zone work activities will be shutdown. When work shutdown occurs, downwind air monitoring as directed by the Safety Officer will be implemented to ensure that vapor emissions do not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

Major Vapor Emission

If any organic levels greater than 5 ppm over background are identified 200 ft downwind from the site or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 ft downwind or half the distance to the nearest residential or commercial property from the Exclusion Zone, then the air quality will be monitored within 200 ft of the perimeter of the nearest residential or commercial structure (20 Ft Zone).

If either of the following criteria are exceeded in the 20 ft Zone, then the Major Vapor Emission Response Plan shall automatically be implemented:

- Organic vapor levels approaching 5 ppm above background for a period of more than 30 minutes.
- Organic vapor levels greater than 10 ppm above background for any time period.

Major Vapor Emission Response Plan

Upon activation, the following activities will be undertaken:

1. The local police authorities will immediately be contracted by the Safety Officer and advised of the situation.
2. Frequent air monitoring will be conducted at 30 minute intervals within the 20 ft Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the Safety Officer.
3. All Emergency contacts will go into effect as appropriate.

APPENDIX E
SITE-WIDE INSPECTION FORM

**Echo Avenue Site
Site-Wide Inspection Form**

Site Details

Site No. : Order on Consent Index No. W3-05131-92-02
Site Name: Con Edison -Echo Avenue
Site Address: 78 Echo Avenue, New Rochelle, NY 10801
City/Town: New Rochelle
County: Westchester
Current Use: Vacant Lot
Intended Use: Waterfront/Residential Development
Date Site Inspected: _____ **Inspectors Name:** _____

Yes No

Site Representative Interviewed?

--	--

If **Yes**, provide the contact name, contact information, and a summary of the interview on a separate sheet.

A. Engineering Controls Observations Yes No

1. Is the Soil Cover System in place and in good condition?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
a. Restricted Portion of Site	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
b. Unrestricted Portion of Site	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
2. Are the Impervious surfaces in good condition? (driveway and parking lots, etc.)	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		

If **No**, provide description/details on a separate sheet and document with photos.

B. Institutional Controls Observations Yes No

1. Are residents planting/maintaining vegetable gardens?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
2. Is groundwater at the site being utilized?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
3. Has there been any site work that may have exposed the remaining contaminated soils at the site?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
4. Does it appear there has been any subsurface site work recently?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		

If **Yes**, provide description/details on a separate sheet and document with photos.

C. Miscellaneous Observations Yes No

1. Does it appear there are surface run-off issues on the site?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
2. Does it appear there have been flooding issues on the site?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
3. Is the site fence compromised in any areas?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		
4. Photos taken for documentation of site conditions ?	<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>			<table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 50%;"></td><td style="width: 50%;"></td></tr></table>		

If **Yes**, provide description/details on a separate sheet and document with photos.

Inspectors Signature: _____ **Date:** _____
Company Name: _____