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Transmitted Via Overnight Delivery

September 8, 2006

Ms. Sharon Hayes
U.S. Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: GE-Pittsfield/Housatonic River Site

Silver Lake Area (GECD600)

Fourth Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake

Dear Ms. Hayes:

This letter constitutes the General Electric Company's (GE's) Fourth Interim Pre-Design Investigation Report (Fourth Interim PDI Report) regarding the soil investigations that have been performed, pursuant to the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site, at certain properties and areas adjacent to Silver Lake in Pittsfield, Massachusetts. These properties and areas are depicted on Figure 1. This Fourth Interim PDI Report provides the following: (a) a description of the most recent soil investigations performed by GE in June and August 2006; (b) a summary of the available soil data; (c) a status update related to site survey and mapping activities, including GE's proposal for inclusion of a portion of an additional property (Parcel I9-10-11) within the Silver Lake Area Removal Action Area (Silver Lake RAA); (d) an evaluation of the need for additional soil sampling for polychlorinated biphenyls (PCBs) and/or other constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents (benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine) (Appendix IX+3); (e) a proposal for additional delineation sampling for certain non-PCB constituents; and (f) a proposed schedule for the performance and reporting of the activities proposed herein.

Please note that pre-design activities summarized in this report pertain to soils only. Activities relating to Silver Lake sediments are being addressed in separate submittals to the U.S. Environmental Protection Agency (EPA), while activities concerning groundwater at the Silver Lake RAA are being addressed separately as part of the Plant Site 1 Groundwater Management Area (GMA 1) monitoring program.

1. Background

In January 2003, GE submitted to EPA a *Pre-Design Investigation Work Plan for the Silver Lake Area Removal Action* (PDI Work Plan), which described the pre-design activities proposed by GE to investigate sediments within Silver Lake and bank soils at certain properties and areas adjacent to Silver Lake. The PDI Work Plan was conditionally approved by EPA in a letter dated February 11, 2003.

In 2003 through 2005, GE conducted several rounds of soil sampling for PCBs and other Appendix IX+3 constituents to characterize the bank soils at the properties and areas adjacent to Silver Lake and to assess whether PCBs are present in soils at concentrations greater than 2 parts per million (ppm) in non-bank portions of such properties. These sampling rounds were conducted in an iterative manner, with the results of each round reported to EPA along with a proposal for additional sampling. The PCB data were also used to identify specific properties at which GE proposed to include a portion of the non-bank area within the Silver Lake RAA based on the finding of PCBs greater than 2 ppm in such area. This information was presented to EPA in the following submittals:

- Pre-Design Investigation Work Plan Addendum for Soils Adjacent to Silver Lake (PDI Work Plan Addendum), submitted in October 2003 and conditionally approved by EPA in a letter of January 14, 2004 (erroneously dated January 14, 2003);
- Proposal for Additional Pre-Design Sampling for Soils Adjacent to Silver Lake (PDI Sampling Proposal), submitted in March 2004 and conditionally approved by EPA in a letter dated March 30, 2004;
- Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake (Interim PDI Report), submitted in September 2004 and conditionally approved by EPA in a letter dated January 18, 2005;
- Second Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake (Second Interim PDI Report), submitted in May 2005 and conditionally approved by EPA in a letter dated August 30, 2005; and
- Third Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake (Third Interim PDI Report), submitted in December 2005.

Following submittal of the Third Interim PDI Report, GE submitted an Addendum to Third Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake (Third Interim PDI Report Addendum) on April 5, 2006. That document presented results of soil sampling activities performed at one property, Parcel I9-9-19, for which access for sampling had not previously been provided. It also included an assessment of the need for additional non-PCB soil data (beyond the data needs identified in the Third Interim PDI Report) and presented a revised proposal for additional non-PCB soil investigations. EPA conditionally approved the Third Interim PDI Report, as modified by the Addendum, in a letter dated May 11, 2006.

Figure 1 shows the boundary of the Silver Lake RAA, encompassing the banks plus the non-bank portions of properties that have been included (with EPA approval) in that RAA. The latter include all of Parcel I9-10-8 and portions of Parcels I9-9-9, I9-9-102 (formerly part of Parcel I9-9-11), I9-9-21 & -22 (commonly owned), I9-9-24 (at which the bank and non-bank portions will be considered as a single averaging area due to lack of a clearly defined bank), I9-9-25, and I9-9-30. Figure 1 also shows the portion of Parcel I9-10-11 (adjacent to Parcel I9-10-8) proposed to be added to the RAA, as discussed below.

2. Summary of Most Recent Pre-Design Investigation Activities

The most recent soil investigations were initially conducted by GE on June 1 through 8, 2006, in accordance with GE's Third Interim PDI Report Addendum, as conditionally approved by EPA, except at Parcel I9-9-19, for which access permission for sampling was received verbally in late August 2006. Following receipt of permission for access to Parcel I9-9-19, GE performed the remaining soil investigations on that property on August 29 and 31, 2006. The field investigations (including sample collection and survey activities) were performed by BBL, an ARCADIS company (BBL), while analytical services were provided by SGS Environmental Services, Inc. (SGS). All field and analytical activities conducted by GE were performed in accordance with GE's approved Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP).

The June 2006 soil sampling effort performed by GE involved the collection of two soil samples from two locations for PCB analysis and 32 soil samples from 14 locations for non-PCB analyses. The sample locations, frequencies, and depths were consistent with the Third Interim PDI Report Addendum, as modified by EPA's conditional approval. The analytical results for samples collected by GE in June 2006 are summarized in Tables 1 and 2 for PCBs and other Appendix IX+3 constituents, respectively. The locations of these recent soil samples, as well as the prior soil sample locations, are shown on Figures 2 through 6 for PCBs and Figures 7 through 11 for other Appendix IX+3 constituents. Soil boring logs associated with the June 2006 investigation activities are provided in Appendix A.

Analytical laboratory results from the June 2006 sampling event have undergone data validation in accordance with Section 7.5 of the FSP/QAPP. The results of this data validation are presented in Appendix B. As discussed in Appendix B, 100% of the data are considered usable, which is greater than the minimum required usability of 90% specified in the FSP/QAPP. Thus, this data set meets the data quality objectives (DQOs) set forth in the FSP/QAPP.

The soil sampling activities performed in August 2006 at Parcel I9-9-19 involved the collection of surface (0- to 1-foot depth) samples from 7 locations, as shown on Figure 9. One of these samples, from location I9-9-19-SB-2-SS, was submitted for analysis of lead. The remaining samples will be held for potential lead analysis depending on the lead result from sample I9-9-19-SB-2-SS. Following receipt of the analytical data from this sampling effort and performance of a data quality assessment, the results will be provided to EPA, as further discussed in Section 5.

3. Summary of Existing Data Sets

The recent soil data described above, combined with prior soil sampling activities for the Silver Lake bank and non-bank soils (performed by both GE and EPA), have resulted in considerable PCB and non-PCB Appendix IX+3 data. After incorporating the results of recent and prior investigations, the overall PCB soil data set for Silver Lake Area soils includes analytical results from approximately 900 soil samples. (This number does not include soil samples collected and analyzed from Parcels I9-9-26, I9-9-27, I9-9-28, and I9-9-29, which were previously remediated under an Administrative Consent Order executed by GE and the Massachusetts Department of Environmental Protection.) For other Appendix IX+3 constituents, the available data set consists of the results from approximately 250 to 260 samples (depending on the analytical parameters) from recent and prior soil sampling activities (again, excluding soil samples previously collected and analyzed from Parcels I9-9-26, I9-9-27, I9-9-28, and I9-9-29).

The locations from which these soil samples were collected are shown on Figures 2 through 6 for PCBs and Figures 7 through 11 for other Appendix IX+3 constituents. In addition to the recent analytical results presented in Tables 1 and 2, the previous data (i.e., pre-June 2006) have been presented in prior reports, and most recently in the Third Interim PDI Report.

4. Status Update Related to Site Survey and Mapping Activities

GE has recently completed site survey activities to aid in the preparation of detailed site mapping to support future Removal Design/Removal Action (RD/RA) evaluation activities. Specifically, in December 2005, Hill Engineers, Planners and Surveyors (Hill), on behalf of GE, performed site survey activities, which included providing survey information related to:

- Existing buildings and other structures;
- Paved, gravel, and unpaved areas;
- Surface elevations and topography;
- 100-year floodplain demarcation;
- Property boundaries and easements (e.g., utilities and rights-of-way);
- Selected utilities (e.g., manholes, telephone poles);
- Existing soil sampling locations; and
- Other prominent features.

GE received site survey information in May 2006, and has updated Figures 1 through 11 to include the information provided by Hill. As part of the site survey information, surveyed locations of tax parcel boundaries were included for all of those parcels considered within or immediately adjacent to the Silver Lake RAA. Previously, this information had been based on copies of tax parcel maps provided to GE by the City of Pittsfield's Tax Assessors Office in 1997.

Based on the site survey information, the western boundary of Parcel I9-10-8, and the coincident eastern boundary of residential Parcels I9-10-10, I9-10-11, I9-10-12, I9-10-13, I9-10-14, and I9-10-15, has been determined to be approximately 10 feet to the east of where it had previously been depicted. The revised boundary of these properties is shown on Figures 5 and 10. As a result, several sample locations that had previously been considered to be on Parcel I9-10-8 have now been determined to be located on the adjacent properties to the west of that parcel, as shown by a comparison of Figure 5 herein with Figure 5 in the Third Interim PDI Report Addendum.

Using this revised boundary, GE has compiled and evaluated the existing PCB data collected by both EPA and GE for the properties adjacent to Parcel I9-10-8 and outside the previously identified Silver Lake RAA boundary – i.e., Parcels I9-10-10, -11, -12, -13, -14, and -15. These data are presented in Table 3, and the corresponding sample locations are shown on Figure 5. Review of these data indicates that the average PCB concentrations in the 0- to 1-foot and greater than 1 foot depth increments at each of these adjacent properties are less than 2 ppm, which is the Performance Standard for PCBs in soil at residential properties.

However, one of these sample locations that was previously considered to be on Parcel I9-10-8 – namely, the location on Parcel I9-10-11 of R83A400 and I9-10-8-SB-16 (which are essentially co-located, as shown on Figure 5) – has shown PCBs greater than 2 ppm (see Table 3). In addition, the non-PCB results from that location (i.e., I9-10-8-SB-16) have shown elevated concentrations of lead in the 0- to 1-foot and 1- to 3-foot depth increments for which delineation sampling was previously conducted, as discussed in the Third Interim PDI Report and Addendum. Although Parcel I9-10-11 as a whole currently meets the residential Performance Standards for PCBs, soil removal will be necessary at location I9-10-8-SB-16 to address lead in the 0- to 1-foot and 1- to 3-foot depth increments. Moreover, such removal will also remove the PCB concentrations found in the same depth increments at that location. In these circumstances, and given that this location was previously considered to be within the Silver Lake RAA, GE proposes to extend the RAA boundary in this area to encompass location I9-10-8-SB-16. Specifically, as shown on Figures 1, 5, and 10, the RAA boundary has been extended onto a portion of

Parcel I9-10-11 to locations where PCB concentrations are less than 2 ppm (i.e., sample locations R43A120, R43B120, and R43C120). Given the existing PCB data at Parcel I9-10-11 (see Table 3), there is no need for additional PCB sampling at this parcel. However, based on the elevated lead results at sample location I9-10-8-SB-16, additional sampling for lead is being proposed on Parcel I9-10-11 (further discussed in Section 5).

In addition, following receipt of the site survey information and in the course of generating mapping for the properties within the Silver Lake RAA, GE identified several discrepancies in the locations of PCB samples previously collected by EPA from properties on the western side of the lake. Those samples were collected as part of EPA's Superfund Technical Assessment and Response Team (START) Program, for which the data have been provided to GE. Specifically, GE identified several differences between: (a) the locations shown in the START Program reports, which had been used in GE's prior reports on the Silver Lake RAA as a basis for pre-design sampling activities; and (b) the survey coordinates for the same data in a July 2004 database exchange from EPA to GE. In similar circumstances at other RAAs subject to the CD (e.g., Floodplain Phase 3 properties), EPA has advised GE that the START Program reports provide a more accurate representation of actual sample locations than survey information provided through the database exchange. Therefore, in the figures herein and in assessing the adequacy of existing PCB data to support RD/RA evaluations, GE has utilized the PCB sample locations identified in the START Program reports, rather than those identified through the GE/EPA database exchange. The locations of the EPA samples as depicted in the START Program reports are shown on Figure 5 for parcels that were sampled for PCBs under that program (i.e., Parcels I9-9-1, I9-10-8, and I9-10-10 through -15).

Based on the above and review of the existing PCB soil data, GE has identified the Silver Lake RAA boundary as depicted on Figure 1. This boundary, along with the locations of the PCB samples depicted on Figures 2 through 6, will be utilized to generate Theissen polygon maps to support future PCB spatial averaging evaluations. The results of detailed RD/RA evaluations for PCBs and non-PCB constituents, as well as proposed remedial actions to meet the applicable Performance Standards (where necessary), will be presented in the Conceptual RD/RA Work Plan (further discussed in Section 6).

5. Additional Delineation Sampling Data Needs and Proposal

GE has reviewed the available data, including the most recent sampling results, to assess the sufficiency of the data to support RD/RA evaluations. Based on review of the available PCB data, no additional data needs related to PCBs in soil have been identified at this time.

For non-PCB Appendix IX+3 constituents, GE's evaluation included reviewing and, where necessary, updating previous preliminary RD/RA evaluations (based on the results of the most recent sampling performed in June 2006). Based on this review and evaluation, GE has identified a few additional data needs to delineate the extent of certain non-PCB constituents. In addition, as discussed in Section 2 above, following receipt of the analytical data and performance of a data quality assessment for the result(s) of the samples collected at Parcel I9-9-19 for lead analysis, the result(s) will be provided to EPA in a brief addendum to this Fourth Interim PDI Report.

The remaining non-PCB sampling data needs that GE has identified, along with GE's proposals to satisfy those data needs, are described below. The proposed sample locations, depth increments, and analytes are summarized in Table 4.

- Parcel I9-9-17 Samples were collected in October 2005 to the east and west of sample location I9-9-17-SB-2 to delineate an elevated concentration of lead in the 3- to 5-foot depth increment. Although delineation was achieved to the east and west of that sample location, GE has determined that, since sample location I9-9-17-SB-2 is situated on the top of the bank, an additional delineation sample to the south of that sample location is warranted. Therefore, GE proposes to collect a sample from the 3- to 5-foot depth increment to the south of sample location I9-9-17-SB-2 for analysis of lead. This proposed location is designated I9-9-17-SB-2-S and shown on Figure 9. In addition, as a conservative measure, GE proposes to collect two additional samples from the 3- to 5-foot depth increment at locations to the southeast and southwest of that location (designated I9-9-17-SB-2-SSE and I9-9-17-SB-2-SSW, respectively), as also shown on Figure 9. These samples will be held for possible future analysis of lead depending on the results from the sample at I9-9-17-SB-2-S.
- Parcel I9-9-24 As described in the Third Interim PDI Report Addendum, the prior non-PCB data from the bank portion of this property showed elevated concentrations of several metals in the 13-to 15-foot depth sample from location I9-9-24-SB-2, and lower, but still somewhat elevated, concentrations of certain metals in the 9- to 11-foot sample from location I9-9-24-SB-1. GE thus proposed to conduct additional sampling for the key metals (cadmium, chromium, and copper) in those depth increments at locations to the southeast and west of the prior samples (i.e., locations I9-9-24-SB-2-SE and -SB-2-W, with samples from locations further south and west held for potential analysis). In its May 11, 2006 conditional approval letter, EPA directed that any such samples analyzed should be analyzed for all Target Analyte List (TAL) metals.

GE conducted such sampling and analysis at locations I9-9-24-SB-2-SE, -SB-2-W, and -SB-2-SES (depicted on Figure 8). The resulting data (presented in Table 2) show elevated concentrations of chromium and lead in the 9- to 11-foot depth increment at sample location I9-9-24-SB-2-SES. Accordingly, GE proposes to collect additional samples from the 9- to 11-foot depth at locations to the south and east of I9-9-24-SB-2-SES for analysis of chromium and lead. These proposed locations are designated I9-9-24-SB-2-SES-1 and I9-9-24-SB-2-SES-2, respectively, and are shown on Figure 8. GE also proposes to collect samples from the 9- to 11-foot depth increment at locations further to the south and east of those locations (designated I9-9-24-SB-2-SES-3 and I9-9-24-SB-2-SES-4, respectively), as also shown on Figure 8. These samples will be held for possible future analysis of chromium and/or lead depending on the results from the initially analyzed samples.

It should be noted that sample location I9-9-24-SB-2 also showed an elevated concentration of aniline (140 ppm) in the 13- to 15-foot depth increment. Although this detection of aniline exceeds the EPA Region 9 Preliminary Remediation Goal (PRG) of 78 ppm, aniline was not detected at any other sample analyzed for semi-volatile organic compounds (SVOCs) from Parcel I9-9-24. There is no Method 1 soil standard for aniline in the Massachusetts Contingency Plan (MCP) for comparison purposes. Given that: (1) location I9-9-24-SB-2 was the only location which aniline was detected; (2) the average existing concentration in the 1- to 15-foot depth increment (35.6 ppm) is well below the EPA PRG for aniline (78 ppm); and (3) the soil in and around location I9-9-24-SB-2 will be removed to a depth of 15 feet below ground surface to address PCBs and other constituents (namely, dioxin/furans, cadmium, chromium, copper, and lead), GE does not believe that there is a need for delineation sampling for aniline at this parcel.

• Parcel I9-10-11 – As discussed in Section 4 above, based on new site survey information, a portion of Parcel I9-10-11, adjacent to Parcel I9-10-8, is proposed to be added to the Silver Lake RAA to encompass location I9-10-8-SB-16. This location, previously believed to be located on Parcel I9-10-8, will require removal due to elevated concentrations of lead in the 0- to 1-foot and 1- to 3-foot depth increments. To delineate the lead concentrations inland from location I9-10-8-SB-16, GE proposes to collect samples from the 0- to 1-foot and 1- to 3-foot depth increments at locations to the northwest and southwest of that sample location for analysis of lead. These locations are designated I9-10-11-SB-16-NW and I9-10-11-SB-16-SW, respectively, and are shown on Figure 10. In addition, as a conservative measure, GE proposes to collect two additional samples from the 0- to 1-foot and 1- to 3-foot depth increments at locations further to the northwest and southwest of those locations (designated I9-10-11-SB-16-NW-1 located on Parcel I9-10-10 and I9-10-11-SB-16-SW-1, respectively), as also shown on Figure 10. These samples will be held for possible future analysis of lead depending on the results from the initially analyzed samples.

As noted above, a summary of the proposed non-PCB sampling is provided in Table 4, with appropriate references to the attached figures presenting these locations.

6. Future Activities and Proposed Schedule

Following EPA's approval of this Fourth Interim PDI Report, GE will perform the soil sampling activities described herein (subject to receipt of access permission) and submit a report to EPA within three months after EPA's approval. GE anticipates that this report will constitute a Final Pre-Design Investigation Report for soils at the Silver Lake RAA and will propose a schedule for submitting the Conceptual RD/RA Work Plan for those soils.

Please contact me if you have any questions or comments regarding this report.

Sincerely,

Richard W. Gates Essfor

Remediation Project Manager

JJL/csc

Attachments

V:\GE_Silver_Lake\Reports and Presentations\4th Interim PDI Rpt\47062196LtrRpt.doc

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Public Information Repositories

GE Internal Repository Affected Property Owners

^{*} cover letter only

Tables



TABLE 1 SUMMARY OF JUNE 2006 PCB SOIL DATA

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

(Results are presented in dry weight parts per million, ppm)

Sample ID	Depth (feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
19-9-11-SB-9	10-15	6/8/2006	ND(0.059)	ND(0.059)	ND(0.059)	ND(0.059)
19-9-24-SB-10	0-1	6/1/2006	ND(0.036) [ND(0.035)]	ND(0.036) [ND(0.035)]	0.041 [0.058]	0.041 [0.058]

Notes:

- 1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs. ND Analyte was not detected. The number in parenthesis is the associated detection limit.
- 2. Field duplicate sample results are presented in brackets.

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Sample ID: Sample Depth(Feet):	5-7	I9-9-1-SB-5 7-9	I9-9-1-SB-5-N 3-5	I9-9-1-SB-5-N 5-7	I9-9-1-SB-5-S 5-7
Parameter Date Collected:	06/06/06	06/06/06	06/06/06	06/06/06	06/06/06
Semivolatile Organics					
2-Methylnaphthalene					
3&4-Methylphenol					
Acenaphthene					
Acenaphthylene					
Aniline					
Anthracene					
Benzo(a)anthracene					
Benzo(a)pyrene					
Benzo(b)fluoranthene					
Benzo(g,h,i)perylene					
Benzo(k)fluoranthene					
Chrysene					
Dibenzo(a,h)anthracene					
Dibenzofuran					
Di-n-Butylphthalate					
Fluoranthene					
Fluorene					
Indeno(1,2,3-cd)pyrene					
Naphthalene					
Phenanthrene					
Phenol					
Pyrene					
Inorganics					
Aluminum	ı	l .	ı	ı	T
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead	2460	32.4	2110	494	790
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Sample ID: Sample Depth(Feet):	I9-9-1-SB-5-S 7-9	I9-9-1-SB-5-S 9-11	I9-9-1-SB-6 9-11	I9-9-1-SB-6-S 1-3	I9-9-1-SB-6-S 3-5
Parameter Date Collected:	06/06/06	06/06/06	06/06/06	06/06/06	06/06/06
Semivolatile Organics					
2-Methylnaphthalene					
3&4-Methylphenol					
Acenaphthene					
Acenaphthylene					
Aniline					
Anthracene					
Benzo(a)anthracene					
Benzo(a)pyrene	=-				
Benzo(b)fluoranthene					
Benzo(g,h,i)perylene					
Benzo(k)fluoranthene					
Chrysene					
Dibenzo(a,h)anthracene		 			
Dibenzofuran					
Di-n-Butylphthalate					
Fluoranthene					
Fluorene					
Indeno(1,2,3-cd)pyrene					
Naphthalene				 	
Phenanthrene					
Phenol		 		 	
Pyrene					
,					
Inorganics		T	Г		
Aluminum					
Antimony					
Arsenic	7.82		5.10		
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead	584	5.07	6.01	703	1190
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

5	Sample ID: Sample Depth(Feet):	I9-9-1-SB-6-S 5-7	I9-9-1-SB-6-S 7-9	I9-9-1-SB-6-S 9-11	I9-9-1-SB-6-SS 1-3	I9-9-1-SB-6-SS 3-5
Parameter	Date Collected:	06/06/06	06/06/06	06/06/06	06/06/06	06/06/06
Semivolatile Organic	s					
2-Methylnaphthalene						
3&4-Methylphenol						
Acenaphthene						
Acenaphthylene						
Aniline						
Anthracene						
Benzo(a)anthracene						
Benzo(a)pyrene						
Benzo(b)fluoranthene						
Benzo(g,h,i)perylene						
Benzo(k)fluoranthene						
Chrysene						
Dibenzo(a,h)anthracer	ne					
Dibenzofuran						
Di-n-Butylphthalate						
Fluoranthene						
Fluorene						
Indeno(1,2,3-cd)pyrene	е					
Naphthalene						
Phenanthrene						
Phenol						
Pyrene						
Inorganics						
Aluminum						
Antimony						
Arsenic			10.9			
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead		1020	268	12.4	22700	1000
Magnesium						
Manganese						
Mercury						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Thallium						
Vanadium						
Zinc						

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Sample ID: Sample Depth(Feet):	I9-9-1-SB-6-SS 5-7	19-9-1-SB-6-SS 7-9	I9-9-1-SB-6-SS 9-11	I9-9-18-SB-1-S 0-1
Parameter Date Collected:	06/06/06	06/06/06	06/06/06	06/01/06
Semivolatile Organics	00/00/00	00/00/00	00/00/00	00/01/00
2-Methylnaphthalene				
3&4-Methylphenol				
Acenaphthene			 	
Acenaphthylene				
Aniline		 	 	
Anthracene				
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene				
Benzo(g,h,i)perylene		 		
Benzo(k)fluoranthene	 		 	
Chrysene				
Dibenzo(a,h)anthracene				
Dibenzo(a,n)anthracene Dibenzofuran				
Di-n-Butylphthalate				
Fluoranthene				
Fluorene				
Indeno(1,2,3-cd)pyrene				
Naphthalene				
Phenanthrene				
Phenol				
Pyrene				
Inorganics				1
Aluminum				
Antimony				3.10 J
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	1.32 B	42.2	64.8	
Magnesium				
Manganese				
Mercury				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Vanadium				
Zinc				

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Sample ID: Sample Depth(Feet):	9-11	19-9-24-SB-2-SE 13-15	19-9-24-SB-2-SES 9-11	19-9-24-SB-2-SES 13-15		
Parameter Date Collected:	06/08/06	06/08/06	06/08/06	06/08/06		
Semivolatile Organics						
2-Methylnaphthalene						
3&4-Methylphenol						
Acenaphthene						
Acenaphthylene			==			
Aniline						
Anthracene			==			
Benzo(a)anthracene						
Benzo(a)pyrene			==			
Benzo(b)fluoranthene						
Benzo(g,h,i)perylene						
Benzo(k)fluoranthene						
Chrysene			-			
Dibenzo(a,h)anthracene						
Dibenzofuran			==	==		
Di-n-Butylphthalate						
Fluoranthene			-			
Fluorene			-			
Indeno(1,2,3-cd)pyrene			-			
Naphthalene						
Phenanthrene						
Phenol			-			
Pyrene			-			
Inorganics						
Aluminum	1760 [3270]	4930	4230	4630		
Antimony	38.1 [8.85 B]	1.56 B	3.32 B	1.83 B		
Arsenic	5.68 [11.4]	18.4	6.54	4.93		
Barium	557 [1140]	100	168	75.0		
Beryllium	0.196 B [0.358 B]	0.521 B	0.255 B	0.202 B		
Cadmium	4.35 [191]	0.357 B	7.14	ND(1.71)		
Calcium	1380 [5020]	117000	16700	11600		
Chromium	5.24 [19.1]	10.6	423	9.42		
Cobalt	4.55 [2.65]	12.5	4.49	3.54		
Copper	18.2 [54.4]	430	260	236		
Iron	6130 [10200]	16300	49300	26400		
Lead	153 [313]	1,400 (See Note 6)	1060	206		
Magnesium	381 [622]	6260	1780	1510		
Manganese	3660 [15200]	1080	479	337		
Mercury	0.0890 [0.118]	0.889	0.560	0.472		
Nickel	3.82 [7.06]	76.6	23.4	12.8		
Potassium	1160 [488]	927	446	385		
Selenium	2.08 B [7.01]	2.78 B	0.812 B	1.25 B		
Silver	0.724 B [3.02]	1.57 B	ND(1.65)	ND(1.71)		
Sodium	2130 [884]	1100	653	665		
Thallium	1.11 B [17.2]	0.950 B	ND(1.65)	ND(1.71)		
Vanadium	7.76 [15.3]	20.2	13.7	8.38 B		
Zinc	3410 [10900]	798	2030	154		

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Sample ID Sample Depth(Feet)	9-11	I9-9-24-SB-2-W 13-15	I9-10-8-SB-16-SS 0-1	RA-3-SB-15-EE 0-1
Parameter Date Collected	: 06/08/06	06/08/06	06/01/06	06/02/06
Semivolatile Organics				
2-Methylnaphthalene				ND(7.3)
3&4-Methylphenol				ND(7.3)
Acenaphthene				3.7 J
Acenaphthylene				2.8 J
Aniline				ND(7.3)
Anthracene				7.1 J
Benzo(a)anthracene				23
Benzo(a)pyrene				24
Benzo(b)fluoranthene				27
Benzo(g,h,i)perylene				18
Benzo(k)fluoranthene				11
Chrysene				24
Dibenzo(a,h)anthracene				2.3 J
Dibenzofuran				ND(7.3)
Di-n-Butylphthalate				2.5 J
Fluoranthene				45
Fluorene				2.8 J
Indeno(1,2,3-cd)pyrene				15
Naphthalene				2.2 J
Phenanthrene				32
Phenol				5.0 J
Pyrene				54
Inorganics			<u> </u>	L
Aluminum	7360	7560		
Antimony	2.09 B	1.42 B		
Arsenic	2.68	3.02		
Barium	182	47.9		
Beryllium	0.240 B	0.340 B		
Cadmium	1.48	ND(1.16)		
Calcium	9780	7450		
Chromium	14.5	9.28		
Cobalt	6.24	5.61		
Copper	76.1	75.5		
Iron	28200	45400		
Lead	575	102	225	
Magnesium	2950	1470		
Manganese	299	521		
Mercury	4.73	0.213		
Nickel	19.6	13.8		
Potassium	310	399		
Selenium	ND(2.69)	ND(2.27)		
Silver	ND(1.34)	ND(2.27)		
Sodium	148	134		
Thallium	ND(1.34)	ND(1.14)		
Vanadium	13.6	13.5		
Zinc	197	62.6		
LIIIU	197	02.0		

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Sample ID		RA-3-SB-15-WW	SLB-1BB	SLB-1BB	SLB-1BB
Sample Depth(Feet)		1-3	0-1	1-3	3-5
Parameter Date Collected	06/02/06	06/02/06	06/01/06	06/01/06	06/01/06
Semivolatile Organics					
2-Methylnaphthalene	ND(7.0) [ND(7.0)]	34 J	ND(0.87)		
3&4-Methylphenol	ND(7.0) [ND(7.0)]	ND(71)	0.59 J		
Acenaphthene	2.8 J [3.1 J]	76	ND(0.87)		
Acenaphthylene	1.7 J [1.7 J]	ND(71)	0.69 J		
Aniline	12 [11]	ND(71)	ND(0.87)		
Anthracene	6.6 J [9.1]	140	0.46 J		
Benzo(a)anthracene	20 [28]	160	1.1		
Benzo(a)pyrene	15 [21]	120	2.3		
Benzo(b)fluoranthene	17 [24]	120	ND(0.87)		
Benzo(g,h,i)perylene	12 [15]	63 J	ND(0.87)		
Benzo(k)fluoranthene	6.2 J [11]	54 J	ND(0.87)		
Chrysene	19 [23]	130	2.1		
Dibenzo(a,h)anthracene	ND(7.0) [ND(7.0)]	ND(71)	ND(0.87)		
Dibenzofuran	ND(7.0) [1.5 J]	61 J	ND(0.87)		
Di-n-Butylphthalate	ND(7.0) [ND(7.0)]	ND(71)	1.2		
Fluoranthene	27 [36]	370	3.0		
Fluorene	1.7 J [2.4 J]	79	ND(0.87)		
Indeno(1,2,3-cd)pyrene	12 [16]	68 J	ND(0.87)		
Naphthalene	2.6 J [2.5 J]	110	0.17 J		
Phenanthrene	24 [33]	560	1.1		
Phenol	ND(7.0) [ND(7.0)]	ND(71)	2.2		
Pyrene	32 [44]	390	2.2		
Inorganics			<u>.</u>	Į.	
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead				1810	459
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					
LIIIO					

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results are presented in dry weight parts per million, ppm)

Notes:

- 1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of semivolatiles and metals.
- 2. -- Not Analyzed.
- 3. ND Analyte was not detected. The number in parenthesis is the associated detection limit.
- 4. Only those constituents detected in one or more samples are summarized.
- 5. Field duplicate sample results are presented in brackets.
- 6. A sample from this same location and depth increment was collected on October 18, 2005, and analyzed for lead. As reported in the Third Interim PDI Report, that sample showed a lead concentration of 3.2 ppm. The average lead concentration from that sample and the June 2006 sample from the same location/depth is 702 ppm.

Data Qualifiers:

Organics (semivolatiles)

J - Indicates an estimated value less than the practical quantitation limit (PQL).

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.

Sample ID	Date Collected	Depth (Feet)	Total PCBs [ppm]				
19-10-10 (EPA START PROGRAM PCB SOIL DATA)							
R43A000	9/21/1998	0-0.5	ND(0.50)				
1143/1000	9/21/1998	0.5-1	ND(0.50)				
R43A025	9/21/1998	0-0.5	0.9 J				
	9/21/1998	0.5-1	ND(0.50)				
R43A050	9/21/1998 9/21/1998	0-0.5 0.5-1	0.4 J 0.7 J				
	10/12/1998	0.3-1	0.6 J				
R44B025	10/12/1998	0.5-1	0.6 J				
	10/12/1998	0-0.5	1.2 J				
	10/12/1998	0.5-1	0.7 J				
R44B050	10/27/1998	0-2	0.4 J				
	10/27/1998	2-4	ND(0.50) [ND(0.090)]				
	10/27/1998 10/27/1998	4-6 6-8	ND(0.50) ND(0.60)				
	10/12/1998	0-0.5	0.8 J				
R44B075	10/12/1998	0.5-1	0.5 J				
R44B100	10/12/1998	0-0.5	0.3 J				
R44B100	10/12/1998	0.5-1	0.3 J				
R44B120	10/12/1998	0-0.5	0.2 J				
	10/12/1998	0.5-1	0.6 J				
R44C050	10/12/1998	0-0.5	0.5 J [0.19]				
	10/12/1998 10/12/1998	0.5-1 0-0.5	0.4 J 0.7 J				
R44C100	10/12/1998	0.5-1	0.7 J				
	10/12/1998	0-0.5	0.5 J				
	10/12/1998	0.5-1	0.8 J				
R44C120	10/27/1998	0-2	ND(0.50)				
11440120	10/27/1998	2-4	ND(0.50)				
	10/27/1998	4-6	ND(0.50)				
	10/27/1998 10/12/1998	6-8 0-0.5	ND(0.60) [ND(0.60)] ND(0.50)				
	10/12/1998	0.5-1	ND(0.50)				
	10/12/1998	0.3-1	ND(0.50)				
R44D025	10/27/1998	2-4	ND(0.50)				
	10/27/1998	4-6	ND(0.60)				
	10/27/1998	6-8	ND(0.70)				
	10/12/1998	0-0.5	2.1				
	10/12/1998	0.5-1	1.7				
R44D050	10/27/1998 10/27/1998	0-2 2-4	0.8 J ND(0.50)				
	10/27/1998	4-6	ND(0.50)				
	10/27/1998	6-8	ND(0.60)				
D.44D075	10/12/1998	0-0.5	0.5 J				
R44D075	10/12/1998	0.5-1	0.2 J				
R44D100	10/12/1998	0-0.5	0.7 J				
	10/12/1998	0.5-1	0.8 J				
R44D120	10/12/1998	0-0.5	0.7 J				
	10/12/1998 10/13/1998	0.5-1 0-0.5	0.6 J [0.41] [0.5 J] 1.7 J				
	10/13/1998	0-0.5	2.8				
D001107	10/30/1998	0-2	2.3				
R83A425	10/30/1998	2-4	0.6 J[1.2]				
	10/30/1998	4-6	ND(0.8)				
	10/30/1998	6-8	ND(0.7)				
	10/13/1998	0-0.5	0.3 J				
	10/13/1998	0.5-1	0.5 J				
R83A450	10/30/1998 10/30/1998	0-2 2-4	1.1 J 7.1				
	10/30/1998	2-4 4-6	2.7				
	10/30/1998	6-8	0.8 J				

Sample ID	Date Collected	Depth (Feet)	Total PCBs [ppm]
	I9-10-10 (GE	PCB SOIL DATA)	
	4/30/2004	0-1	0.238
	4/30/2004	1-3	ND(0.037)
I9-10-10-SB-1	4/30/2004	3-5	ND(0.044)
	4/30/2004	5-7	ND(0.045)
	4/30/2004	7-9	ND(0.059)
	4/30/2004	9-11	ND(0.066)
	·	PROGRAM PCB SOIL DATA)	0.0.1
	9/21/1998	0-0.5	0.8 J
	9/21/1998 10/26/1998	0.5-1 0-2	1 J 0.7 J
R43A075	10/26/1998	2-4	ND(0.50) [ND(0.090)]
	10/26/1998	4-6	ND(0.60)
	10/26/1998	6-8	ND(0.50)
	9/21/1998	0-0.5	0.6 J
R43A100	9/21/1998	0.5-1	0.6 J
	9/21/1998	0-0.5	0.4 J
	9/21/1998	0.5-1	0.8 J [0.54]
R43A120	10/26/1998	0-2	0.2 J
K43A120	10/26/1998	2-4	ND(0.50)
	10/26/1998	4-6	ND(0.50)
	10/26/1998	6-8	ND(0.50)
R43B050	9/21/1998	0-0.5	0.4 J
	9/21/1998	0.5-1	0.3 J [0.38]
R43B075	9/21/1998	0-0.5	0.7 J
	9/21/1998	0.5-1	0.2 J
	9/21/1998 9/21/1998	0-0.5 0.5-1	ND(0.50)
	10/26/1998	0.5-1	0.3 J [0.3 J] ND(0.60)
R43B100	10/26/1998	2-4	ND(0.50)
	10/26/1998	4-6	ND(0.50)
	10/26/1998	6-8	ND(0.50) [ND(0.50)]
D40D400	9/21/1998	0-0.5	0.3 J
R43B120	9/21/1998	0.5-1	0.6 J
R43C000	9/21/1998	0-0.5	0.20 J
1430000	9/21/1998	0.5-1	ND(0.50)
	9/21/1998	0-0.5	ND(0.50)
	9/21/1998	0.5-1	ND(0.50)
R43C025	10/26/1998	0-2	ND(0.50)
	10/26/1998	2-4	ND(0.50)
	10/26/1998	4-6	ND(0.50)
	10/26/1998 9/21/1998	6-8 0-0.5	ND(0.50) ND(0.50)
R43C050	9/21/1998	0.5-1	ND(0.50)
	9/21/1998	0-0.5	0.4 J
	9/21/1998	0.5-1	0.4 J [0.26]
D 400075	10/26/1998	0-2	ND(0.50)
R43C075	10/26/1998	2-4	ND(0.60)
	10/26/1998	4-6	ND(0.50) [ND(0.070]
	10/26/1998	6-8	ND(0.60)
R43C100	9/21/1998	0-0.5	ND(0.60)
11450100	9/21/1998	0.5-1	ND(0.50)
	9/21/1998	0-0.5	0.3 J
	9/21/1998	0.5-1	ND(0.50)
R43C120	10/26/1998	0-2	ND(0.60)
	10/26/1998	2-4	ND(0.60)
	10/26/1998	4-6	ND(0.60)
	10/26/1998 10/13/1998	6-8	ND(0.60) ND(1.7)
R83A375	10/13/1998	0-0.5 0.5-1	ND(1.7) 0.4 J
	10/13/1998	0.5-1	2.7
R83A400	10/13/1998	0-0.5	4.2
L	10/10/100	0.0 - 1	7.∠

Sample ID	Date Collected	Depth (Feet)	Total PCBs [ppm]
	I9-10-11 (GE F	PCB SOIL DATA)	
	3/9/2005	1-3	24.3 J
	3/9/2005	3-5	5.6
I9-10-8-SB-16	3/9/2005	5-7	3.6
	3/9/2005 3/9/2005	7-9 9-11	0.24 J [0.99 J] 0.078 J
		ROGRAM PCB SOIL DATA)	0.070 0
R42A000	9/21/1998	0-0.5	ND(0.50)
K42A000	9/21/1998	0.5-1	ND(0.50)
R42A025	9/21/1998	0-0.5	ND(0.50)
	9/21/1998	0.5-1	ND(0.60)
	09/21/98	0-0.5	ND(0.50)
	09/21/98 10/27/98	0.5-1 0-2	0.2 J [ND(0.60)] ND(0.50)
R42A050	10/27/98	2-4	ND(0.50) ND(0.50)
	10/27/98	4-6	ND(0.50)
	10/27/98	6-8	ND(0.50)
	10/12/1998	0-0.5	0.30 J
	10/12/1998	0.5-1	ND(0.50)
R79A000	10/27/1998	2-4	ND(0.50)
	10/27/1998	4-6	ND(0.60)
	10/27/1998	6-8	ND(0.50)
R79A025	10/12/1998	0-0.5 0.5-1	0.10 J 0.30 J
	10/12/1998 10/12/1998	0.5-1	0.30 J 0.4 J
R79A050	10/12/1998	0.5-1	ND(0.50)
D=0.4.0==	10/12/1998	0-0.5	0.2 J [0.18]
R79A075	10/12/1998	0.5-1	0.1 J
	10/12/1998	0-0.5	0.7 J
	10/12/1998	0.5-1	0.9 J
R79A100	10/27/1998	0-2	ND(0.60)
	10/27/1998	2-4	1.3 J
	10/27/1998 10/27/1998	4-6 6-8	ND(0.60) ND(0.60)
	10/12/1998	0-0.5	0.5 J
R79B050	10/12/1998	0.5-1	0.2 J
	10/12/1998	0-0.5	0.2 J [ND(0.50)]
	10/12/1998	0.5-1	ND(0.50)
R79B075	10/27/1998	0-2	ND(0.50)
11.02010	10/27/1998	2-4	ND(0.60)
	10/27/1998	4-6	ND(0.50) [ND(0.50)]
R79B100	10/27/1998 10/12/1998	6-8 0-0.5	ND(0.60) 0.5 J [0.66]
	10/12/1998	0-0.5	ND(0.50)
R79C000	10/12/1998	0.5-1	ND(0.50)
	10/12/1998	0-0.5	ND(0.50)
	10/12/1998	0.5-1	ND(0.50)
R79C025	10/27/1998	0-2	ND(0.50)
55525	10/27/1998	2-4	ND(0.50)
	10/27/1998	4-6	ND(0.50)
	10/27/1998 10/12/1998	6-8 0-0.5	ND(0.60) 0.4 J [0.11]
R79C050	10/12/1998	0.5-1	ND(0.60)
D-202-	10/12/1998	0-0.5	0.4 J
R79C075	10/12/1998	0.5-1	0.7 J
	10/12/1998	0-0.5	0.7 J
	10/12/1998	0.5-1	0.6 J [0.5 J]
R79C100	10/27/1998	0-2	0.4 J
117 55 100	10/27/1998	2-4	0.4 J
	10/27/1998	4-6	ND(0.50)
	10/27/1998	6-8	ND(0.60)
R83A325	10/13/1998	0-0.5	0.3 J
	10/13/1998 10/13/1998	0.5-1 0-0.5	0.7 J 0.9 J
R83A350	10/13/1998	0-0.5	1.2 J
	10/13/1330	V.J-1	1.4 J

Sample ID	Date Collected	Depth (Feet)	Total PCBs [ppm]
	I9-10-13 (EPA START PRO	OGRAM PCB SOIL DATA)	
R42A075	9/21/1998	0-0.5	0.2 J
142/1073	9/21/1998	0.5-1	0.3 J
R42A100	9/21/1998	0-0.5	0.6 J
	9/21/1998	0.5-1	0.2 J
	9/21/1998	0-0.5	0.2 J
	9/21/1998 10/27/1998	0.5-1 0-2	0.2 J ND(0.50)
R42A120	10/27/1998	2-4	0.2 J
	10/27/1998	4-6	ND(0.60)
	10/27/1998	6-8	ND(0.60)
D. (aDaga	9/21/1998	0-0.5	0.50 J
R42B000	9/21/1998	0.5-1	ND(0.50)
	9/21/1998	0-0.5	0.5 J
	9/21/1998	0.5-1	0.3 J [0.26]
R42B075	10/27/1998	0-2	ND(0.50)
	10/27/1998	2-4	ND(0.50)
	10/27/1998	4-5	ND(0.50) [ND(0.10)]
R42B120	9/21/1998	0-0.5	ND(0.50)
	9/21/1998	0.5-1	ND(0.50)
R42C075	9/21/1998 9/21/1998	0-0.5 0.5-1	0.9 J 0.8 J
	9/21/1998	0-0.5	0.5 J [0.14]
	9/21/1998	0.5-1	0.3 J
	10/27/1998	0-2	ND(0.50)
R42C120	10/27/1998	2-4	ND(0.60) [ND(0.60)]
	10/27/1998	4-6	ND(0.80)
	10/27/1998	6-8	ND(0.80)
R83A250	10/13/1998	0-0.5	0.6 J
ROSAZSO	10/13/1998	0.5-1	0.5 J
R83A275	10/13/1998	0-0.5	0.4 J
	10/13/1998	0.5-1	0.5 J
R83A300	10/13/1998	0-0.5	ND(0.6)
	10/13/1998 I9-10-13 (GE PC	0.5-1 CB SOIL DATA)	0.3 J
I9-10-13-SS-1	9/24/1997	0-0.5	0.31
13 10 13 66 1	9/24/1997	0.5-1	0.94
I9-10-13-SS-2	9/24/1997	0-0.5	ND(0.13)
	9/24/1997	0.5-1	ND(0.13)
I9-10-13-SS-3	9/24/1997	0-0.5	1.86
	9/24/1997	0.5-1	1.06
	19-10-14 (EPA START PRO	OGRAM PCB SOIL DATA)	
R83A200	10/13/1998	0-0.5	0.40 J
	10/13/1998	0-0.5	ND(0.70)
	10/13/1998	0.5-1	0.30 J
R83A225	10/30/1998	0-2	0.20 J
	10/30/1998	2-4	ND(0.60)
	10/30/1998 10/30/1998	4-6	ND(0.50) ND(0.60)
	19-10-15 (EPA START PRO	6-8 OGRAM PCB SOIL DATA)	[טס.ט) איז
	10/13/1998	0-0.5	1.3
	10/13/1998	0.5-1	3.2 J
	10/13/1998	0.3-1	0.50 J
R83A150	10/29/1998	2-4	ND(0.60)
	10/29/1998	4-6	ND(0.60)
	10/29/1998	6-8	ND(0.50)
R83A175	10/13/1998	0-0.5	0.70
CONITO	10/13/1998	0.5-1	0.30 J

TABLE 3

SUMMARY OF EPA START PROGRAM PCB SOIL DATA AND GE PCB SOIL DATA FROM PARCELS ADJACENT TO WESTERN BOUNDARY OF PARCEL 19-10-8

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

(Results are presented in dry weight parts per million, ppm)

Sample ID	Date Collected	Depth (Feet)	Total PCBs [ppm]	
19-10-15 (GE PCB SOIL DATA)				
I9-10-8-SB-13	1/29/2004	0-1	1.12	
	1/29/2004	1-3	0.093	
	1/29/2004	3-5	ND(0.042)	
I9-10-8-SB-14	1/29/2004	0-1	0.76	
	1/29/2004	1-3	ND(0.036)	

Notes

- 1. EPA START Program data received via the GE/EPA database exchange (last updated August, 2006).
- 2. GE data are from samples collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs.

Data Qualifiers:

- J = Estimated Value.
- ND Analyte was not detected. The number in parenthesis is the associated detection limit.
- [] = Duplicate sample

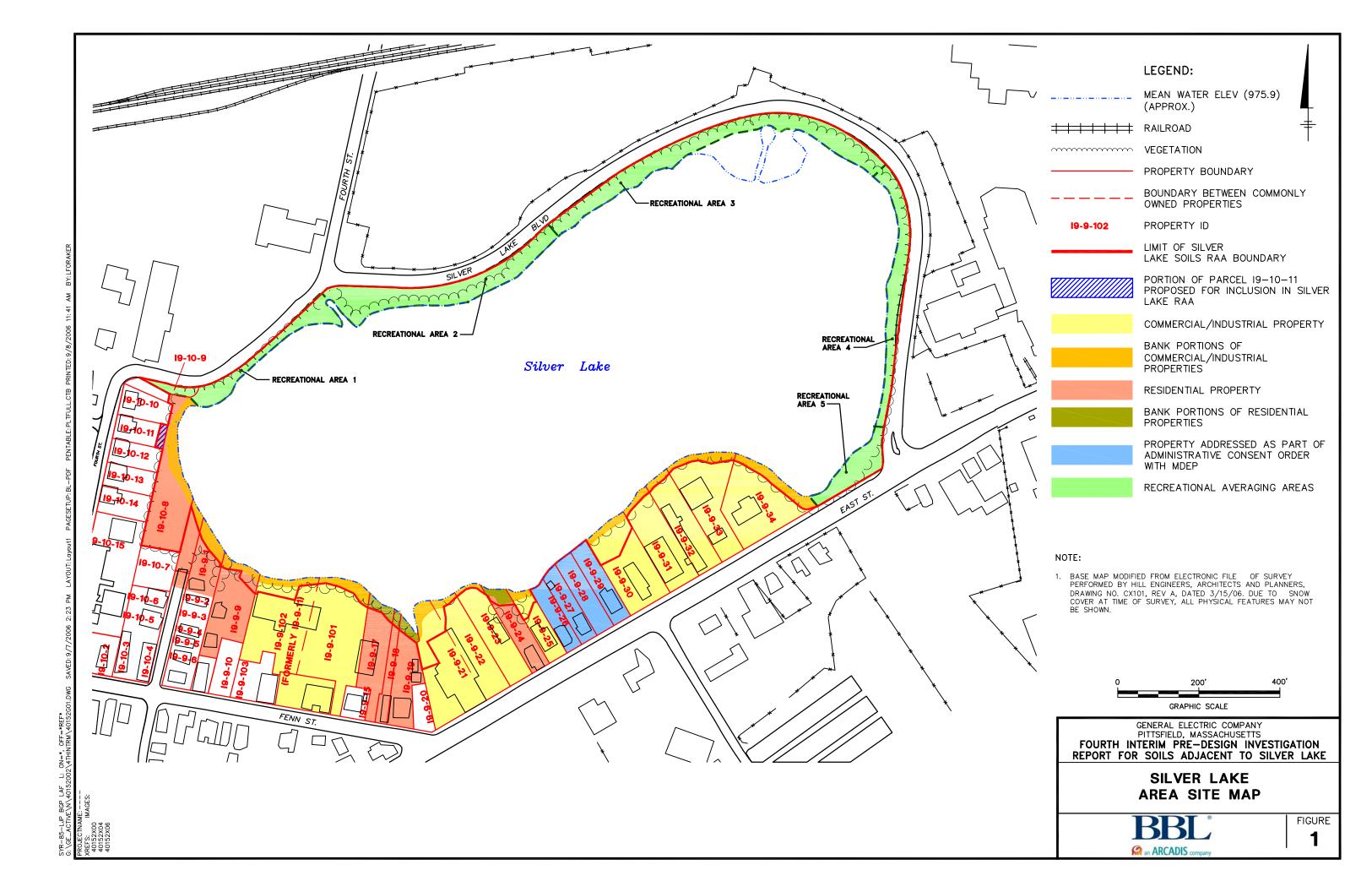
TABLE 4 SUMMARY OF PROPOSED DELINEATION SAMPLING LOCATIONS AND ANALYSES

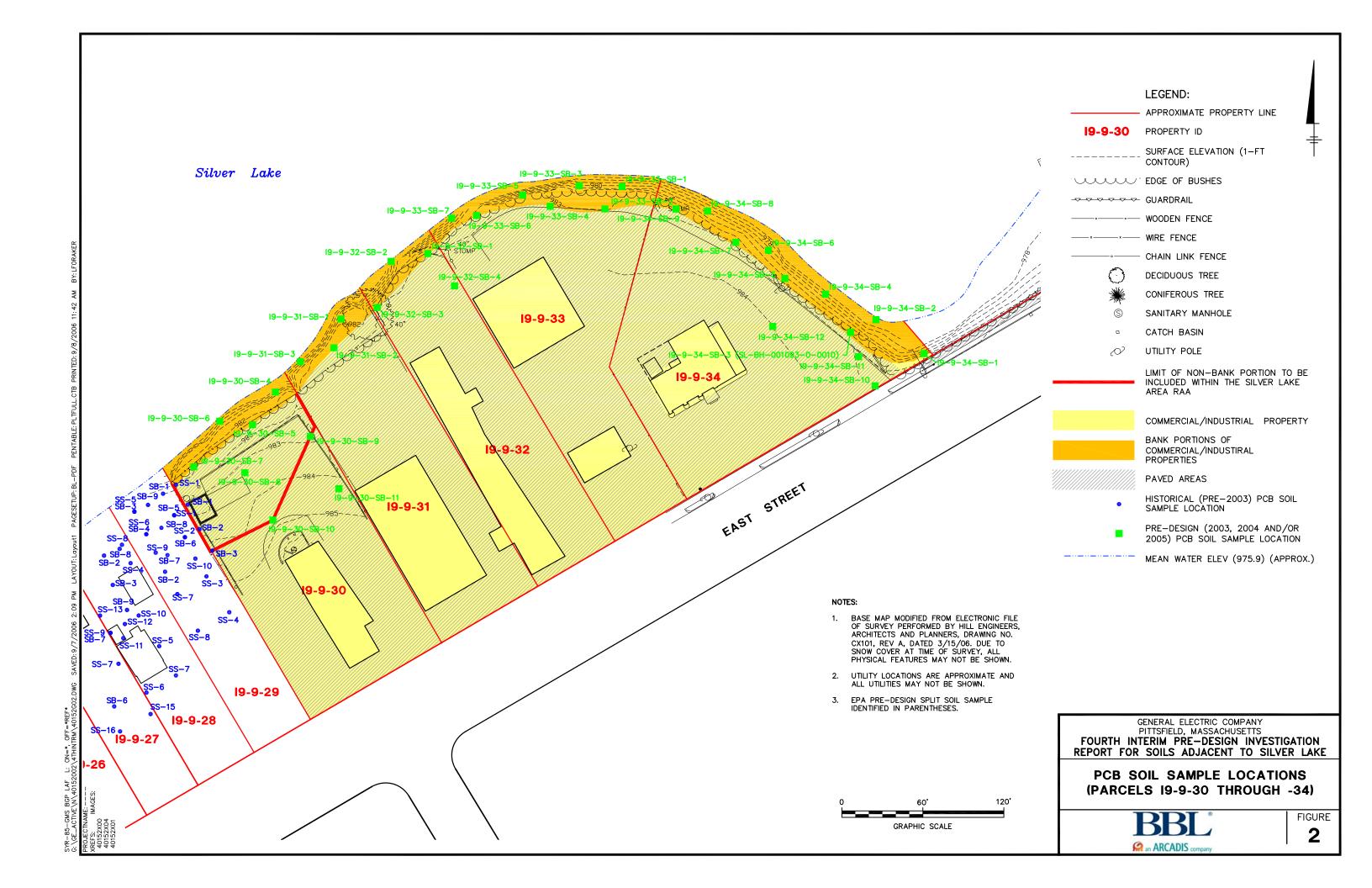
FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

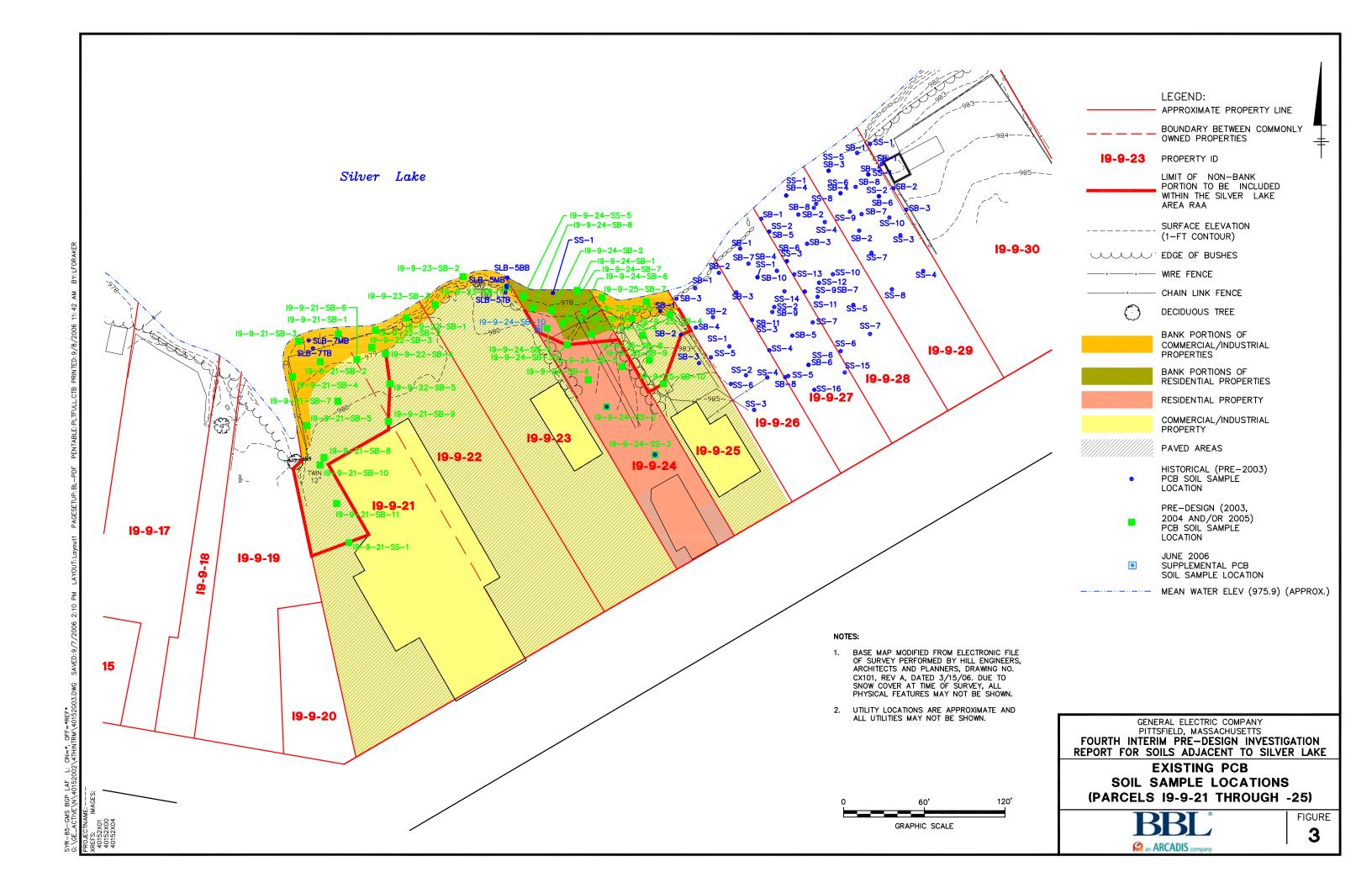
Sample ID	Proposed Sample Depth	Analyses		
Parcel I9-9-17 (See Figure 9)				
19-9-17-SB-2-S	3-5'	Lead – horizontal delineation south of I9-9-17-SB-2		
19-9-17-SB-2-SSE	3-5'	Hold for potential analysis of lead depending on result from 3-5' sample at I9-9-17-SB-2-S		
I9-9-17-SB-2-SSW	3-5'	Hold for potential analysis of lead depending on result from 3-5' sample at I9-9-17-SB-2-S		
Parcel I9-9-24 (See Figure 8)				
19-9-24-SB-2-SES-1	9-11'	Chromium and lead – horizontal delineation south of I9-9-24-SB-2-SES		
19-9-24-SB-2-SES-2	9-11'	Chromium and lead – horizontal delineation east of I9-9-24-SB-2-SES		
19-9-24-SB-2-SES-3	9-11'	Hold for potential analysis of chromium and/or lead depending on result(s) from 9-11' sample at I9-9-24-SB-2-SES-1		
19-9-24-SB-2-SES-4	9-11'	Hold for potential analysis of chromium and/or lead depending on result(s) from 9-11' sample at I9-9-24-SB-2-SES-2		
Parcel I9-10-11 (See Figure 10)				
I9-10-11-SB-16-NW	0-1' & 1-3'	Lead – horizontal delineation northwest of I9-10-8-SB-16		
I9-10-11-SB-16-SW	0-1' & 1-3'	Lead – horizontal delineation southwest of I9-10-8-SB-16		
I9-10-11-SB-16-NW-1	0-1' & 1-3'	Hold for potential analysis of lead depending on result(s) from 0-1' and/or 1-3' sample(s) at I9-10-11-SB-16-NW		
I9-10-11-SB-16-SW-1	0-1' & 1-3'	Hold for potential analysis of lead depending on result(s) from 0-1' and/or 1-3' sample(s) at I9-10-11-SB-16-SW		

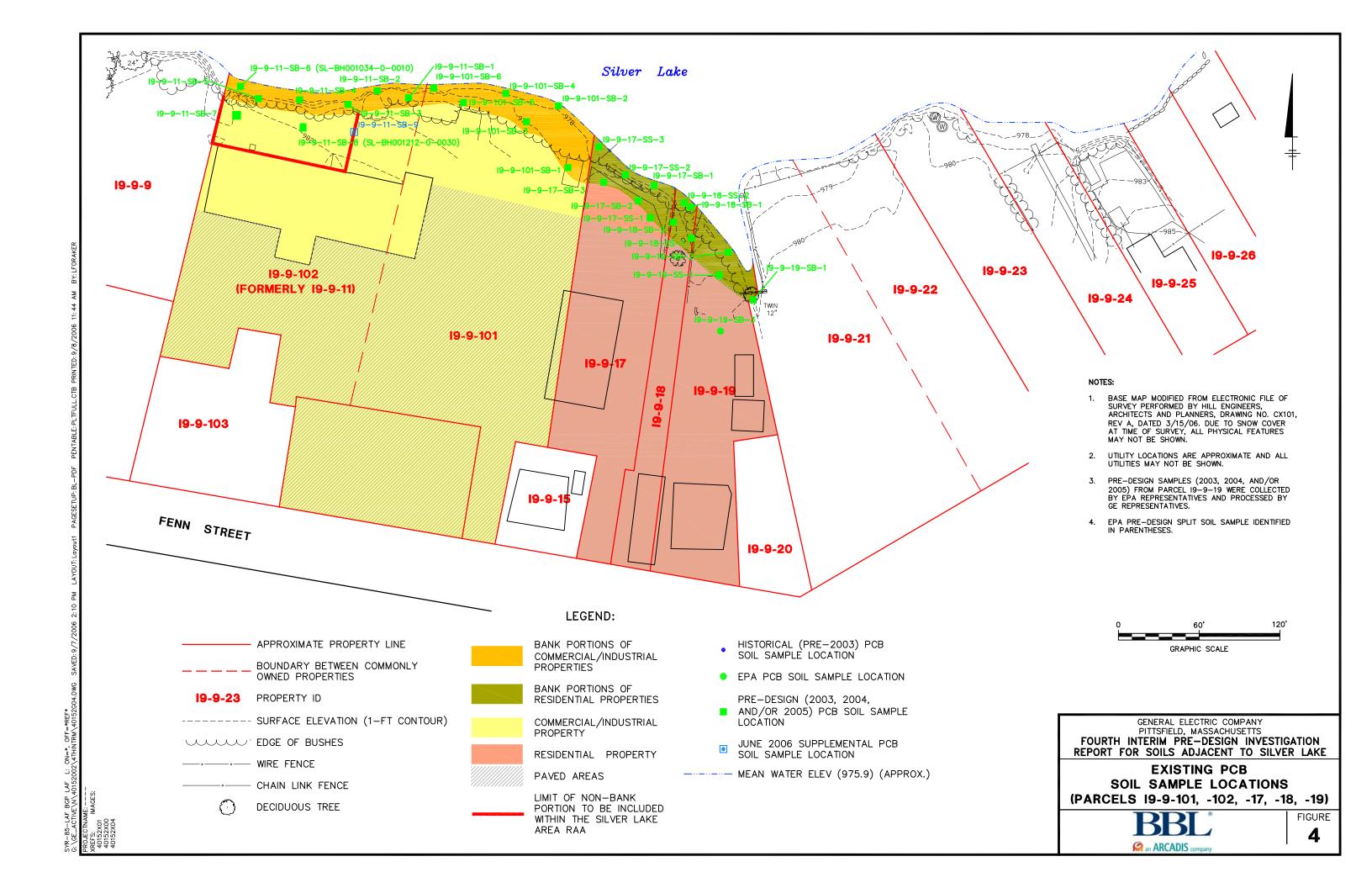
Figures

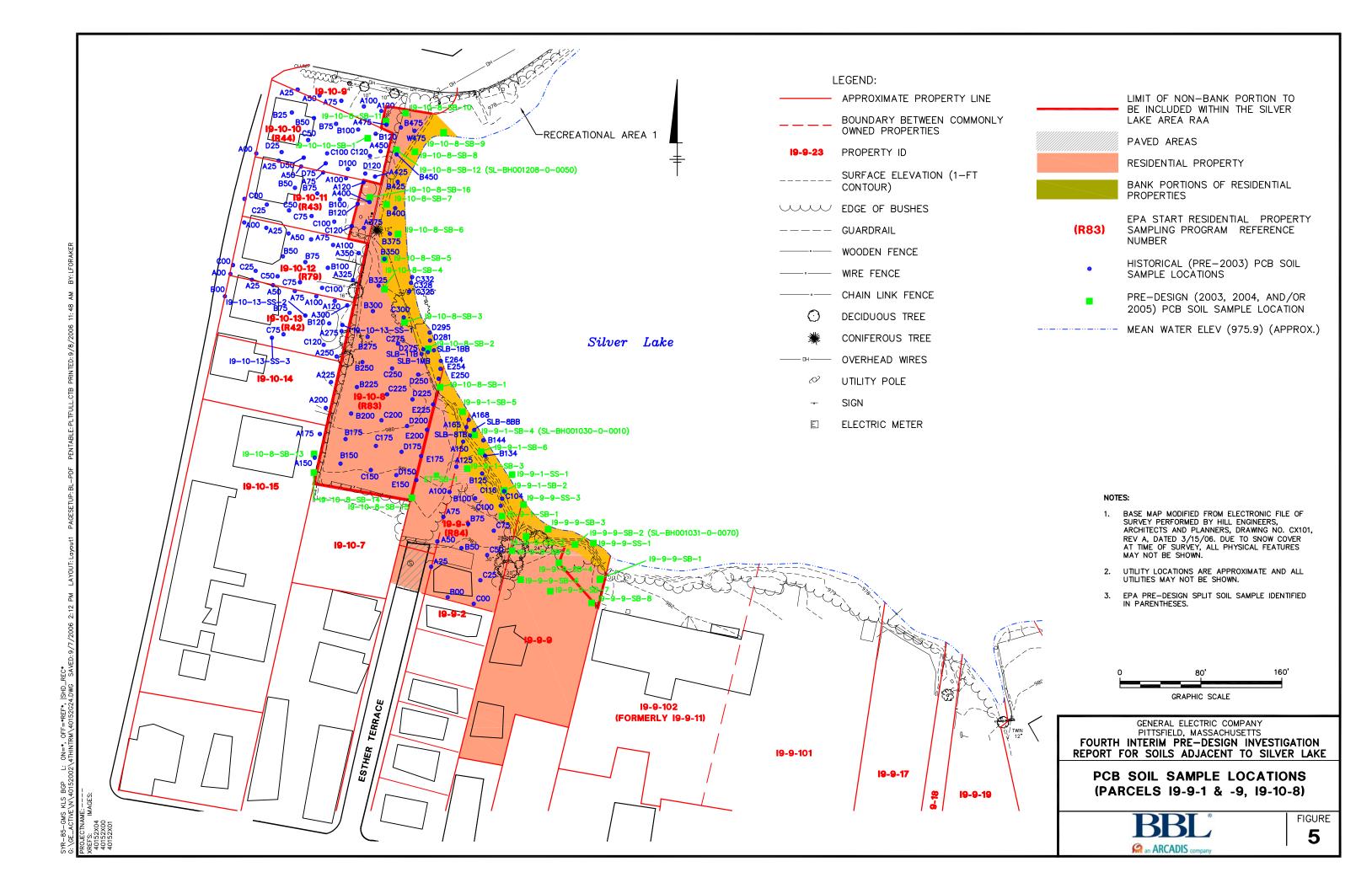


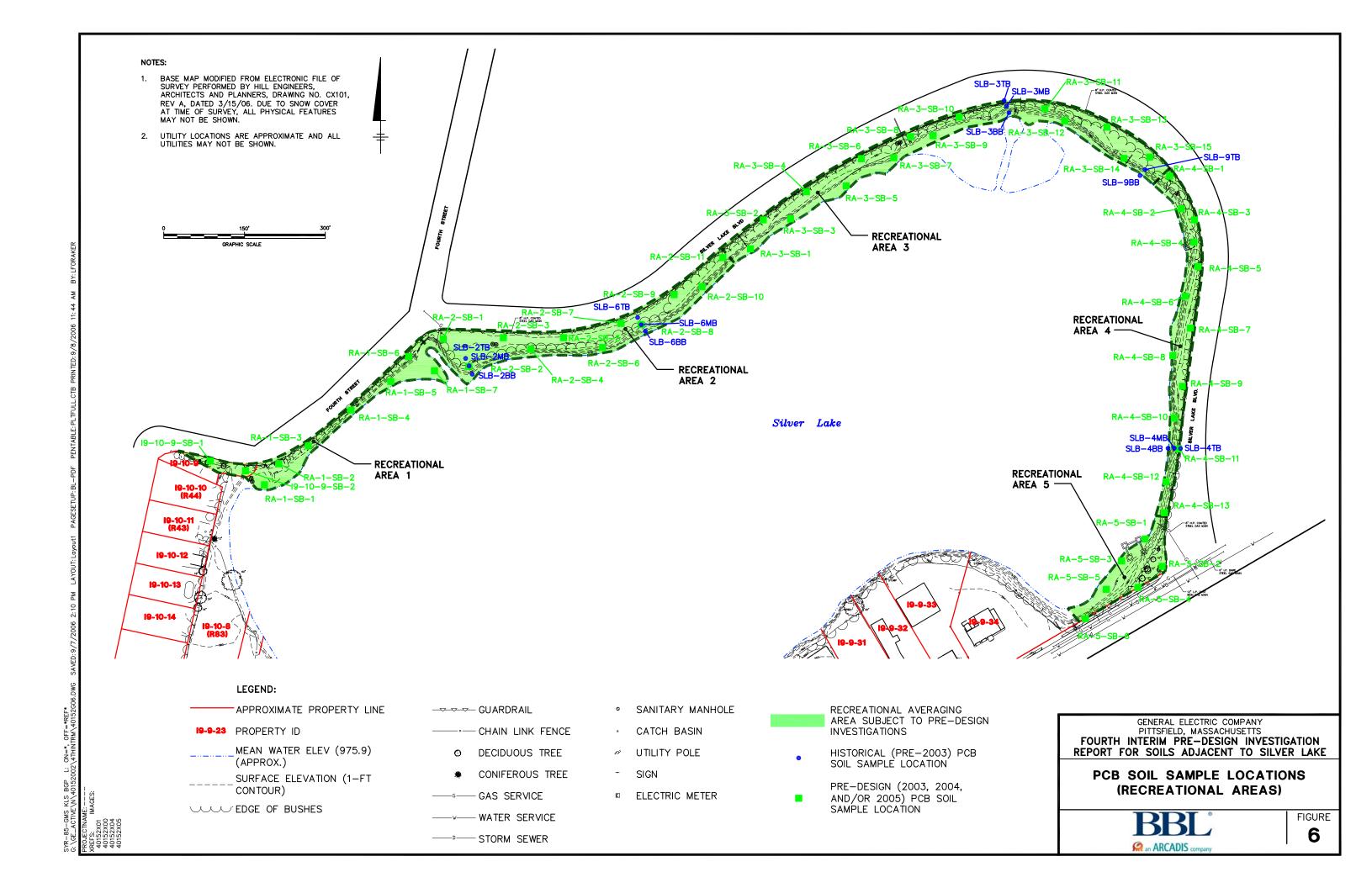


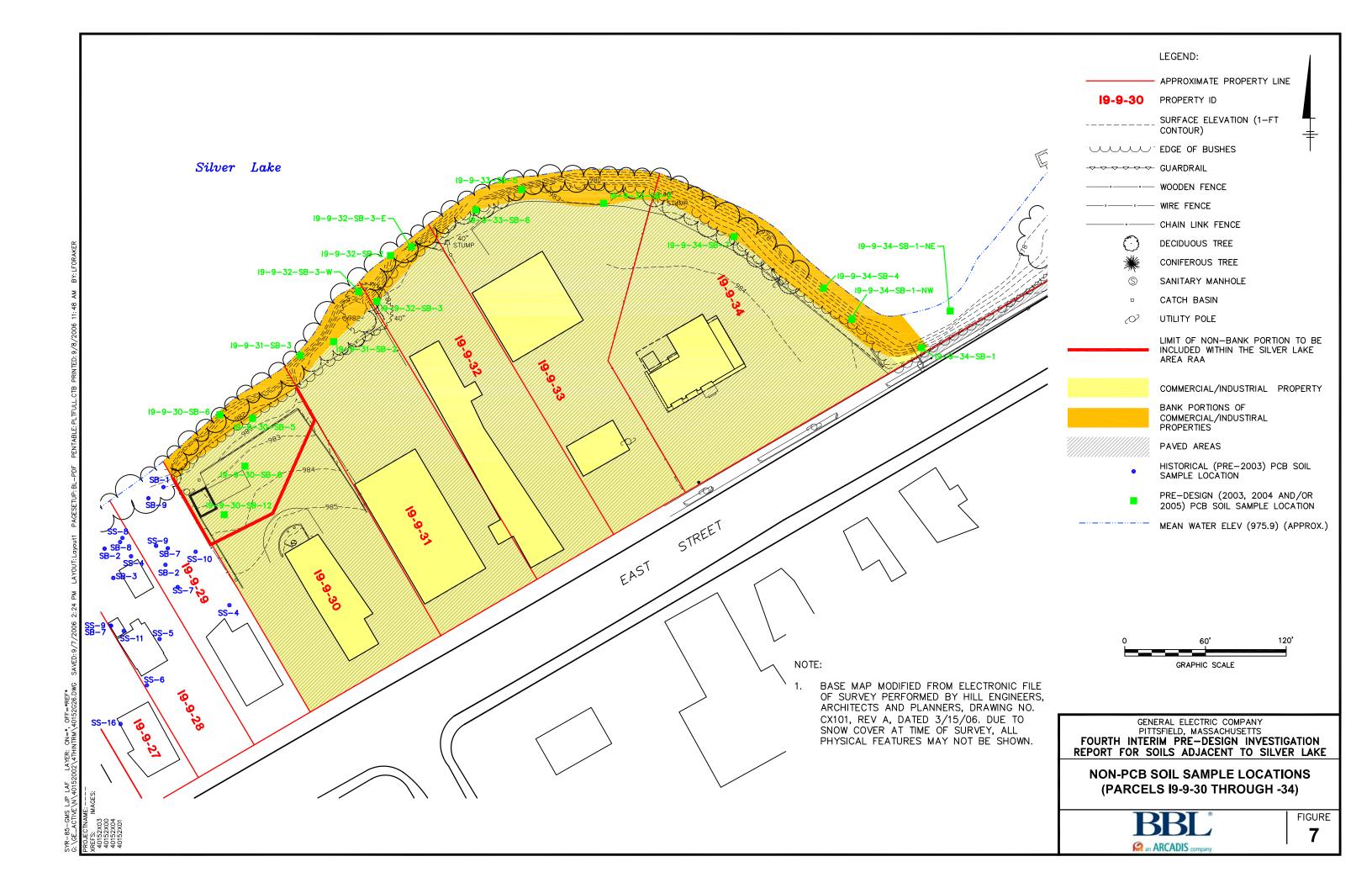


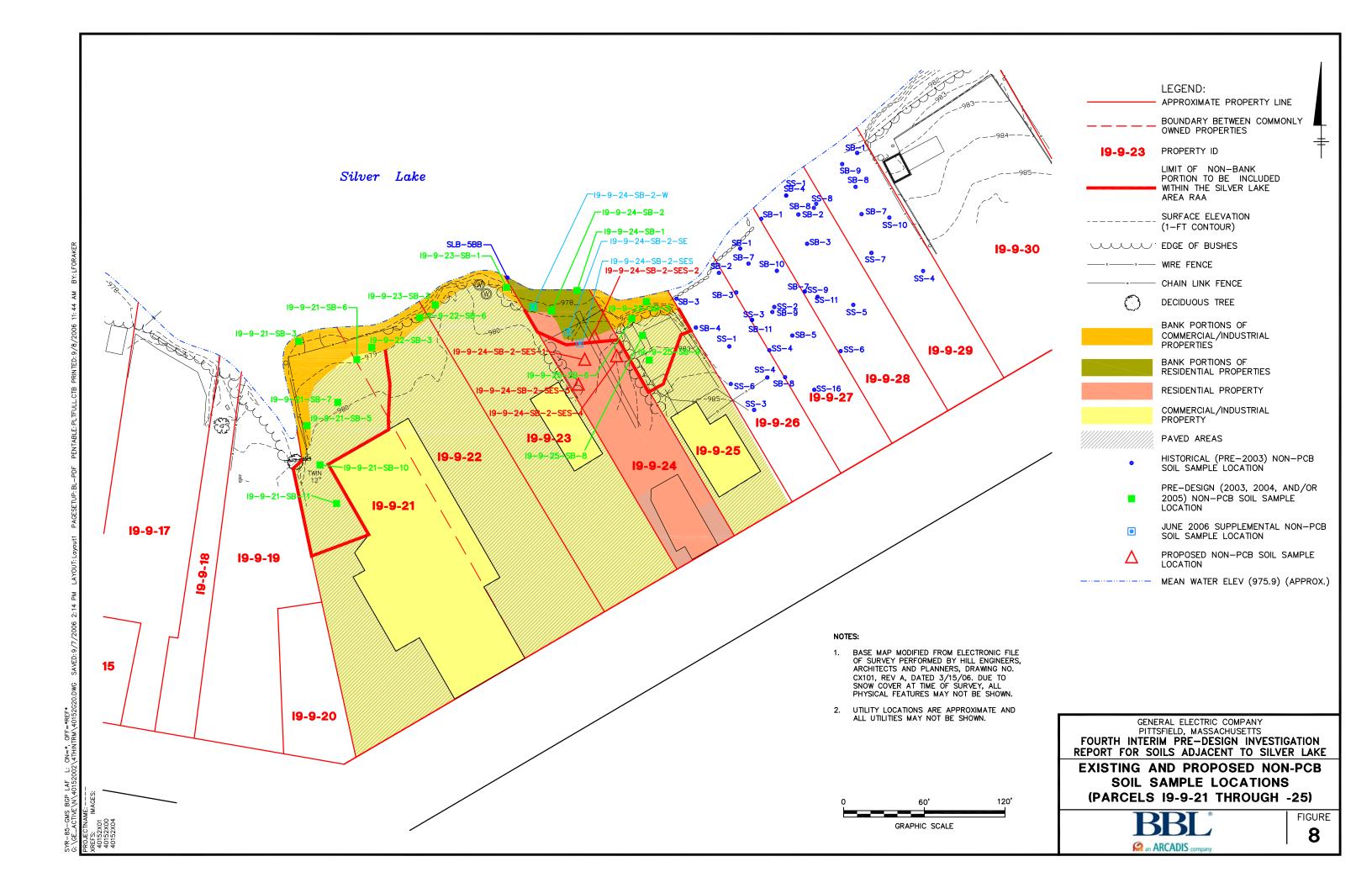


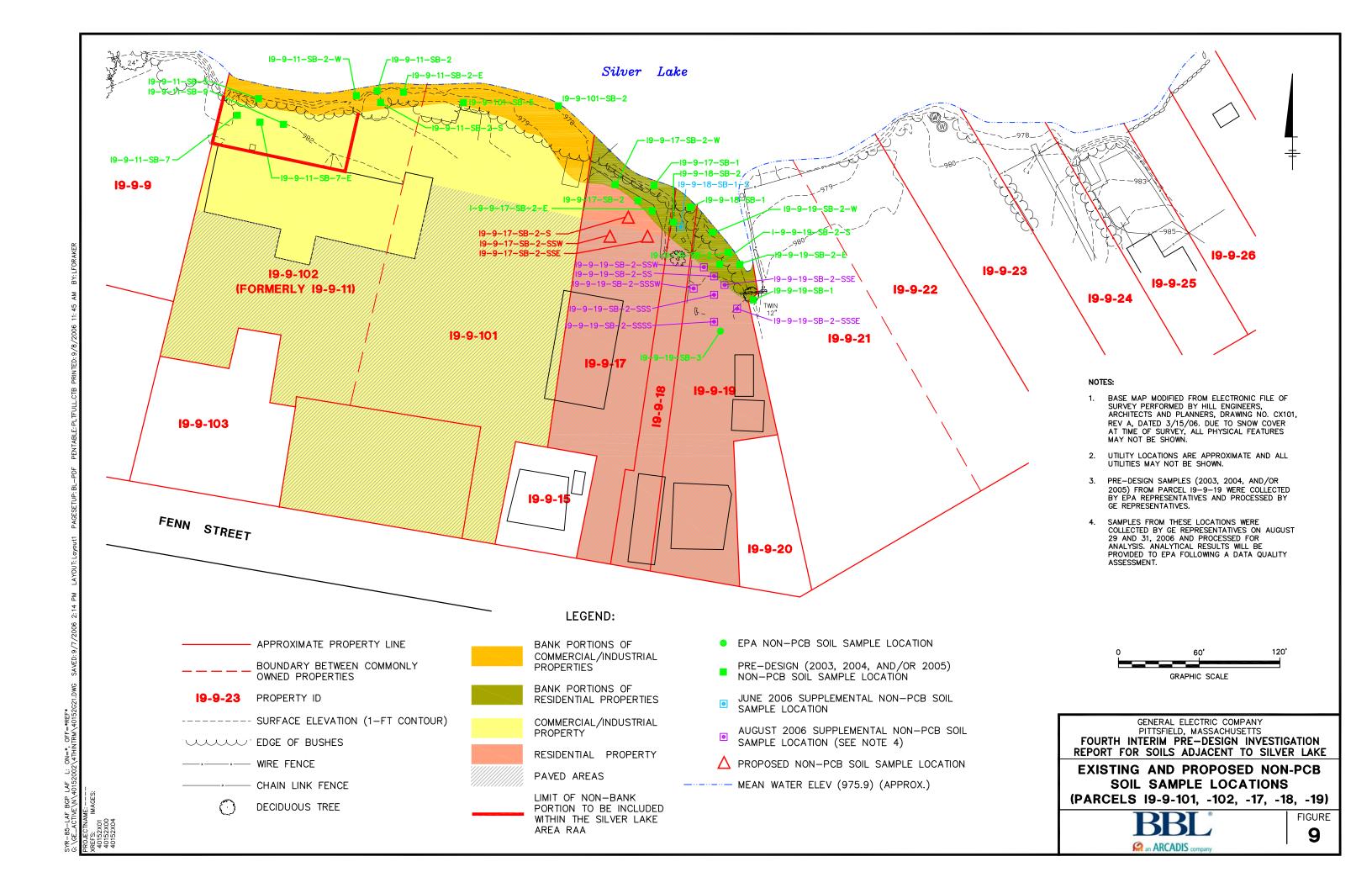


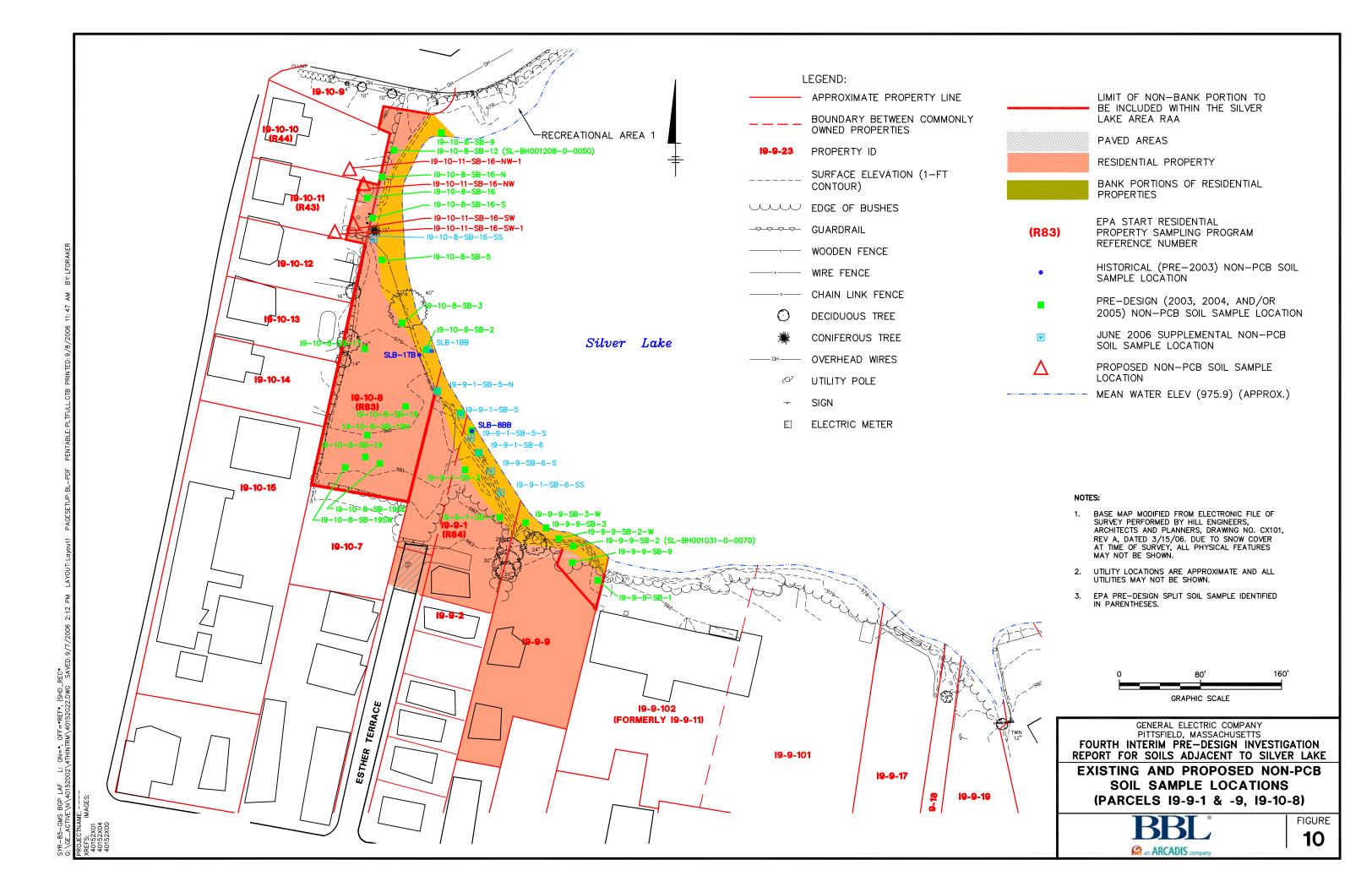


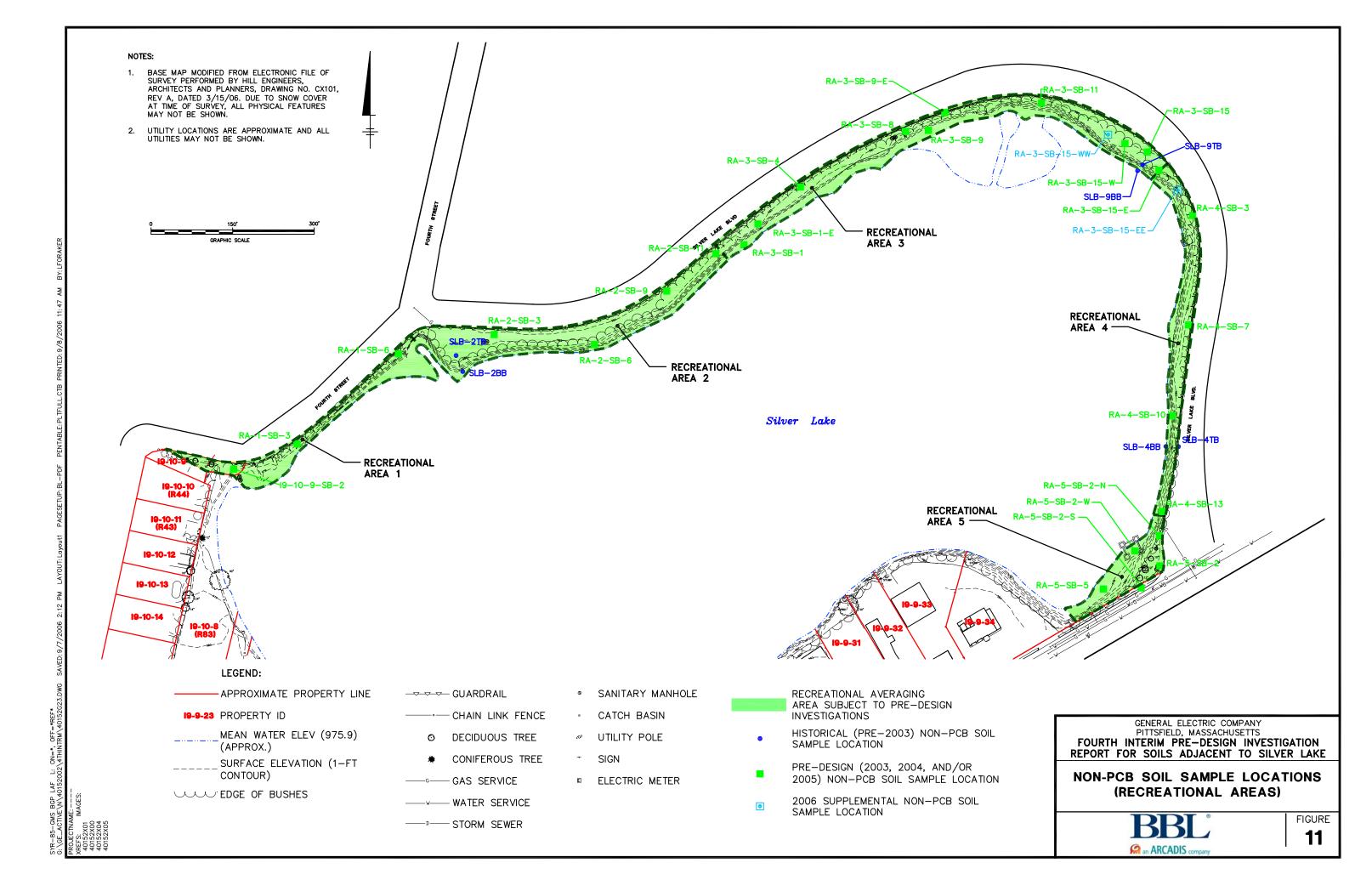












Appendices



Appendix A

Soil Boring Logs



Northing: 533184.5 Easting: 129347.6 Casing Elevation: NA

Borehole Depth: 9' below grade Surface Elevation: 981.1

Descriptions By: JJB

Boring ID: 19-9-1-SB-5

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-1 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction				
-	-							-				
- 4	980 -							Borehole backfilled with Bentonite.				
5 <u>9</u>	 975 - 	1 2	5-7	1.5	0.0		Dark brown fine SAND with Slag, Ash and Cinders, wet. White and gray-brown MARL, wet.	-				
- 10 - <u>9</u>	- - 970 -							_				
- - - 15	-											
-	Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 5-7': Lead; 7-9': Lead; 7-9': Arsenic (analysis on hold).											

Northing: 533207.7 Easting: 129324.5 Casing Elevation: NA

Borehole Depth: 7' below grade **Surface Elevation:** 977.7

Descriptions By: JJB

Boring ID: 19-9-1-SB-5-N

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-1 (Bank)

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction				
98	80 -											
-								-				
-	_							-				
0	-											
-	-							Borehole backfilled with Bentonite.				
-	-											
97	75 -											
	_						Brown fine SAND, some Ash and Cinders.					
		1	3-5	1.6	0.0							
-5							Gray-brown fine to coarse SAND with Slag and Cinders, wet.	1 1				
-		2	5-7	1.4	0.0			-				
97	70 -							-				
-	-							_				
-10	-											
	-											
	_											
94	65 -											
-								-				
-								-				
-15	-							_				
	-											
$\left \ \right $	Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 3-5': Lead; 5-7': Lead.											
Ç	an ARCADIS company											

Page: 1 of 1

Northing: 533161.3 Easting: 129357.5 Casing Elevation: NA

Borehole Depth: 11' below grade **Surface Elevation:** 977.3

Descriptions By: JJB

Boring ID: 19-9-1-SB-5-S

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-1 (Bank)

DЕРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction		
- -	980 - - -							-		
-	- 975 - -							Borehole backfilled with Bentonite.		
-5 -	- - 970 -	1	5-7	1.1	0.0		Dark brown fine SAND.			
- - -10	- - -	3	7-9 9-11	1.5	0.0		Black fine SAND, CINDERS, ASH, and SLAG. White and gray MARL, wet.	-		
- -	- 965 - -							-		
- 15	-						Remarks: bgs = below ground surface; NA = Not Applic			
-	Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 5-7': Lead; 7-9': Lead, Arsenic; 9-11': Lead; 9-11: Arsenic (analysis on hold). Template: V:\GE_Silver_Lake\Notes and Data\Logs - Sept 2005\SilverLake-2005 ldf									

Page: 1 of 1

Northing: 533146.7 Easting: 129365.4 Casing Elevation: NA

Borehole Depth: 11' below grade **Surface Elevation:** 977.4

Descriptions By: JJB

Boring ID: 19-9-1-SB-6

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-1 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column		Stratigraphic De	escription		C	Boring Construction
9	80 -											
-												
-												
-0-												
- - - 9	- - 175 -										_	Borehole backfilled with Bentonite.
-												
-												
-5	_											_
	-											
	-											
9	70 -											
-												
-						====	VA/I-16	MADI				
-10	_						White and gray	MARL.				_
	-	1	9-11	1.8	0.0							
	-											
9	65 -											
-												
-												
– 15	-											
-13	4											-
- 5		3 an A	RC	AD	S is a	comr	.	narks: bgs = below g Analyses: 9-1	ground surface; NA = 1': Lead, Arsenic.	Not Applica	able/Availabl	e.
		152.00						lver Lake\Notes and F				

Northing: 533128.6 Easting: 129377.5 Casing Elevation: NA

Borehole Depth: 11' below grade **Surface Elevation:** 977.8

Descriptions By: JJB

Boring ID: 19-9-1-SB-6-S

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-1 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction		
9	80 -									
	75 -	1	1-3	1.2	0.0		Brown SILT, some fine Sand.	Borehole backfilled with Bentonite.		
		2	3-5	1.2	0.0		Gray-brown fine SAND, some Slag, Ash and Cinders.			
-5		3	5-7	1.3	0.0		Black fine SAND, ASH, CINDERS, and SLAG.			
9	70 -	4	7-9	1.3	0.0		White and gray MARL, wet.			
-10	_	5	9-11	1.5	0.0		Gray MARL, wet.	-		
9	- 65 -									
- 15	-									
Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 1-3': Lead; 3-5: Lead; 5-7': Lead; 7-9': Lead, Arsenic; 9-11': Lead; 9-11: Arsenic (analysis on hold).										

Northing: 533107.6 Easting: 129386.9 Casing Elevation: NA

Borehole Depth: 11' below grade **Surface Elevation:** 977.9

Descriptions By: JJB

Boring ID: 19-9-1-SB-6-SS

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-1 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
98	-							
								Borehole backfilled with Bentonite.
97	-	1	1-3	1.5	0.0		Gray-brown SILT and fine SAND.	
-5		2	3-5	1.5	0.0		Black fine SAND, ASH, CINDERS, SLAG, and WOOD, strong odor, wet.	
- 5	-	3	5-7	1.5			White MARL.	
97	0 -	4	7-9	1.5	0.0		Gray-brown MARL.	
- 10	-	5	9-11	1.2	0.0		Gray MARL, wet.	
96	- 5							
- 15								
	2.3	3	RC	AD		Comm	Remarks: bgs = below ground surface; NA = Not Applic Analyses: 1-3': Lead; 3-5: Lead; 5-7': Lead; 7 7-9': Arsenic (analysis on hold); 9-11': Lead; 9-11': Arsenic (analysis on hold).	
<i>-</i>	ru. d			, \D			te: V:\GE_Silver_Lake\Notes and Data\Logs - Sept 2005\SilverLak	

Date: 6/12/06

Date Start/Finish: 6/8/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 2' Macrocore

Northing: 532999.0 Easting: 129586.1 Casing Elevation: NA

Borehole Depth: 15' below grade **Surface Elevation:** 982.0

Descriptions By: JJB

Boring ID: 19-9-11-SB-9

Client: General Electric Company

Location: Silver Lake

Parcel 19-9-102

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
							-
- 980 -							Borehole backfilled with Bentonite.
-5 ·	-						-
-10	1	10-12	1.6	0.0		Dark brown fine SAND, ASH, CINDERS, SLAG, METAL, PORCELAIN, and GLASS.	-
- 970 - - ·	2	12-14	1.6	0.0		White MARL.	
I M	3 an F	ARC	P CAD			Remarks: bgs = below ground surface; NA = Not Application Analyses: 10-15': PCBs. MS/MSD collected (

Date Start/Finish: 6/1/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 2' Macrocore

Northing: 532929.4 Easting: 129829.0 Casing Elevation: NA

Borehole Depth: 1' below grade Surface Elevation: 977.4

Descriptions By: TOR

Boring ID: 19-9-18-SB-1-S

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-18 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction			
٥	980 -										
-	-										
	-	1	0-1	1.0	0.0		Dark brown SILT, some fine Sand and Wood.	Borehole backfilled with Bentonite.			
- 5	- 975 - -							with Beritoffite.			
	-										
- - -	- 970 - -							-			
-10											
-	- 965 - -							-			
	-										
- 15								-			
-	Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 0-1': Antimony.										

Page: 1 of 1

Northing: 532975.6 Easting: 130084.2 Casing Elevation: NA

Borehole Depth: 15' below grade **Surface Elevation:** 978.7

Descriptions By: JJB

Boring ID: 19-9-24-SB-2-SE

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-24 (Bank)

рертн	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction			
98	0 -							-			
- 97. - 5	-							Borehole backfilled with Bentonite.			
-10		1	9-11	1.5	0.1	00000	Dark gray-brown fine SAND, ASH, CINDERS, SLAG, METALS, GLASS, GRAVEL, slight odor.				
	-	2	11-13	1.2	0.2	0000					
96 - -15	5 -	3	13-15	1.5	0.4		Dark brown to black SILT, strong odor. Gray-brown MARL.				
	Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 9-11': TAL Metals; 13-15': TAL Metals. Duplicate sample ID: SL-0606-DUP-3 (TAL Metals, 9-11').										

Northing: 532967.3 Easting: 130092.9 Casing Elevation: NA

Borehole Depth: 15' below grade **Surface Elevation:** 979.1

Descriptions By: JJB

Boring ID: 19-9-24-SB-2-SES

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-24 (Bank)

DEPTH	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction				
980							-				
- - - 975 -5	-						Borehole backfilled with Bentonite.				
- 970 - 10	- 1	9-11	1.1	0.2		Dark gray-brown fine SAND, slight odor. Dark brown SLAG, METAL, CINDERS, and BRICK, some fine Sand.					
_	_ 2	11-1;	1.1	0.0		Gray-brown MARL.					
- 965 -15	3	13-18	1.1	0.1		Remarks: bgs = below ground surface; NA = Not Applic Analyses: 9-11': TAL Metals; 13-15': TAL Metals					
(A)	an ARCADIS company										

Data File:19-9-24-SB-2-SES.dat Date: 6/12/06

Date Start/Finish: 6/8/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Tractor-Mounted Power Probe
Sample Method: 2' Macrocore

Northing: 532994.0 Easting: 130058.4 Casing Elevation: NA

Borehole Depth: 15' below grade **Surface Elevation:** 978.4

Descriptions By: JJB

Boring ID: 19-9-24-SB-2-W

Client: General Electric Company

Location: Silver Lake

Parcel I9-9-24 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
	-							
98	30 -							-
	-							-
-	-							Borehole backfilled with Bentonite.
	-							
	-							
97	75 –							
-5	_							
-	_							
-	-							
-	-							
97	70 -					D:::		
-10	-	1	9-11	1.2	0.1	000	Dark gray-brown fine SAND, little Slag, Ash, and Cinders, slight odor.	-
-	-					000		
-	-	2	11-13	1.2	0.0) () ()		
96	55 -						Dark gray-brown fine to medium SAND, some Slag.	-
-	-	3	13-15	1.4	0.0			-
15	+					1.*.*.*		
		3					Remarks: bgs = below ground surface; NA = Not Applic Analyses: 9-11': TAL Metals; 13-15': TAL Met MS/MSD collected (TAL Metals, 9-11').	
	A a	an 🗗	RC	ΑV	15	comp	pany	

Date Start/Finish: 6/1/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 2' Macrocore

Northing: 532978.1 Easting: 130061.9 Casing Elevation: NA

Borehole Depth: 1' below grade Surface Elevation: 979.4

Descriptions By: TOR

Boring ID: 19-9-24-SB-10

Client: General Electric Company

Location: Silver Lake

Parcel 19-9-24

												
ОЕРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction				
	-											
-									_			
و	980 -											
0						:-	Brown fine SAND and SILT with Gravel.		5			
		1	0-1	0.8	0.0				Borehole backfilled with Bentonite.			
	-											
-									1			
-									-			
	-											
٥	975 -											
-5									-			
	Ī											
	-											
-									1			
-									_			
	1											
و	970 -											
-10									-			
	+											
									+			
-									_			
	-											
9	965 -								1			
-15									_			
	_											
-	Remarks: bgs = below ground surface; NA = Not Applicable/Available.											
Analyses: 0-1': PCBs. Duplicate Sample ID: SL-0606-DUP-1 (0-1', PCBs).												
an ARCADIS company												

Date Start/Finish: 6/1/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 2' Macrocore

Northing: 533357.2 Easting: 129261.8 Casing Elevation: NA

Borehole Depth: 1' below grade Surface Elevation: 977.1

Descriptions By: TOR

Boring ID: 19-10-8-SB-16-SS

Client: General Electric Company

Location: Silver Lake

Parcel 19-10-8

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
	980 -	Sal	Sa	~	PIC	Ge		
-	-	1	0-1	0.9	0.0		Brown SILT, some Organic Material, little fine sand.	Borehole backfilled with Bentonite.
	_							with Demonie.
-	975 -							
-	-							
-	-							
-5	-							-
-								
-	970 -							
-10) -							-
	-							
-	965 -							
-	-							
-	-							
- 15	5 -							-
	Remarks: bgs = below ground surface; NA = Not Applicable/Available. Analyses: 0-1': Lead.							
]	an ARCADIS company							

Data File:19-10-8-SB-16-SS.dat Date: 6/9/06

Date Start/Finish: 6/2/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 2' Macrocore

Northing: 534004.6 Easting: 131056.1 Casing Elevation: NA

Borehole Depth: 3' below grade Surface Elevation: 982.9

Descriptions By: TOR

Boring ID: RA-3-SB-15-EE

Client: General Electric Company

Location: Silver Lake

Recreational Area 3

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
	985 -							
0		1	0-1	0.7	0.0		Dark brown SILT, some Organic Material.	Borehole backfilled with Bentonite.
							Brown SILT, some Clay and Gravel.	
	980 -	2	1-3	1.6	0.0		Brown fine SAND and SLAG, some Cinders.	
	_							
_ _5								
	-							
	-							
	975 -							
-10								_
								_
	970 -							_
	-							_
- 15								_
	_							
-		2		2			Remarks: bgs = below ground surface; NA = Not Ap Analyses: 0-1': SVOCs; 1-3': SVOCs.	
-	Duplicate Sample ID: SL-0606-DUP-2 (1-3', SVOCs).							
	A	an 🆊	\RC	AD	IS a	comp	any	

Date Start/Finish: 6/2/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 2' Macrocore

Northing: 534106.9 Easting: 130927.9 Casing Elevation: NA

Borehole Depth: 3' below grade Surface Elevation: NA

Descriptions By: TOR

Boring ID: RA-3-SB-15-WW

Client: General Electric Company

Location: Silver Lake

Recreational Area 3

DЕРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
-	-							-
-	-0 -	1 2	0-1	0.8	0.0		Brown SILT, some fine Sand. Dark brown fine SAND and SLAG, some Cinders and Brick.	Borehole backfilled with Bentonite.
- 5	-5 -							
-	-							-
- - 10-	10 -							_
-	-							-
- 15-	15 -	_					® Remarks: bgs = below ground surface; NA = Not Application	
, s	Analyses: 1-3': SVOCs. MS/MSD collected (SVOCs, 1-3'). Analyses: 1-3': SVOCs. MS/MSD collected (SVOCs, 1-3').							

Data File:RA-3-SB-15-WW.dat Date: 6/9/06

Page: 1 of 1

Date Start/Finish: 6/1/06 Drilling Company: BBL Driller's Name: GAR

Drilling Method: Direct Push
Auger Size: NA
Rig Type: Hand Driven Macrocore
Sample Method: 2' Macrocore

Northing: 533248.7 Easting: 129316.1 Casing Elevation: NA

Borehole Depth: 5' below grade Surface Elevation: 976.7

Descriptions By: TOR

Boring ID: SLB-1BB

Client: General Electric Company

Location: Silver Lake

Parcel I9-10-8 (Bank)

DEРТН	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Boring Construction
-	-							-
	_	1	0-1	0.6	0.0		Black SILT and ORGANIC MATERIAL.	Borehole backfilled with Bentonite.
							Brown fine SAND.	1 1
-	975 - -	2	1-3	1.4	1.0		Black fine to medium SAND with Ash, Cinders, Brick, Metal, and Porcelain, strong odor, very wet.	-
- 5	-	3	3-5	1.0	1.4			-
-	- 970 - -							-
	-							-
-10	-							-
	965 -							_
-	-							-
- 15	-							
-							Remarks: bgs = below ground surface; NA = Not Applic	
-	Analyses: 0-1': SVOCs; 1-3': Lead; 3-5': Lead.							
	an ARCADIS company							

Appendix B

Data Validation Report (June 2006)



APPENDIX B SOIL SAMPLING DATA VALIDATION REPORT

FOURTH INTERIM PRE-DESIGN INVESTIGATION REPORT FOR SOILS ADJACENT TO SILVER LAKE

GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS

1.0 General

This attachment summarizes the Tier I and Tier II data reviews performed for soil samples collected during Pre-Design Investigation activities conducted at the Silver Lake properties in Pittsfield, Massachusetts. The samples were analyzed for various constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents -- benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (hereafter referred to as Appendix IX+3), by SGS Environmental Services, Inc. (formerly Paradigm Analytical Labs, Inc.) of Wilmington, North Carolina. Data validation was performed for four polychlorinated biphenyl (PCB) samples, six semi-volatile organic compound (SVOC) samples, and 30 metals samples.

2.0 Data Evaluation Procedures

This attachment outlines the applicable quality control criteria utilized during the data review process and any deviations from those criteria. The data review was conducted in accordance with the following documents:

- Field Sampling Plan/Quality Assurance Project Plan, General Electric Company, Pittsfield, Massachusetts, Blasland, Bouck & Lee, Inc. (BBL; FSP/QAPP, approved May 25, 2004 and resubmitted June 15, 2004);
- Region I Tiered Organic and Inorganic Data Validation Guidelines, USEPA Region I (July 1, 1993);
- Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses, USEPA Region I (June 13, 1988) (Modified February 1989);
- Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, USEPA Region I (February 1, 1988) (Modified November 1, 1988); and
- Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, USEPA Region I (Draft, December 1996).

A tabulated summary of the Tier I and Tier II data evaluations is presented in Table B-1. Each sample subjected to evaluation is listed in Table B-1 to document that data review was performed, as well as present the highest level of data validation (Tier I or Tier II) that was applied. Samples that required data qualification are listed separately for each parameter (compound or analyte) that required qualification.

The following data qualifiers were used in this data evaluation.

- J The compound was positively identified, but the associated numerical value is an estimated concentration. This qualifier is used when the data evaluation procedure identifies a deficiency in the data generation process. This qualifier is also used when a compound is detected at an estimated concentration less than the corresponding practical quantitation limit (PQL).
- U The compound was analyzed for, but was not detected. The sample quantitation limit is presented and adjusted for dilution and (for solid samples only) percent moisture. Non-detect sample results are presented as ND(PQL) within this report and in Table B-1 for consistency with documents previously prepared for investigations conducted at this site.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is estimated and may or may not represent the actual level of quantitation. Non-detect sample results that required qualification are presented as ND(PQL) J within this report and in Table B-1 for consistency with documents previously prepared for this investigation.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data should not be used for any qualitative or quantitative purpose.

3.0 Data Validation Procedures

The FSP/QAPP provides (in Section 7.5) that all analytical data will be validated to a Tier I level following the procedures presented in the *Region I Tiered Organic and Inorganic Data Validation Guidelines* (USEPA guidelines). Accordingly, 100% of the analytical data for these investigations were subjected to Tier I review. The Tier I review consisted of a completeness evidence audit, as outlined in the *USEPA Region I CSF Completeness Evidence Audit Program* (USEPA Region I, 7/31/91), to ensure that all laboratory data and documentation were present. In the event data packages were determined to be incomplete, the missing information was requested from the laboratory. Upon completion of the Tier I review, the data packages complied with the USEPA Region I Tier I data completeness requirements. A tabulated summary of the samples subjected to Tier I and Tier II data evaluation is presented in the following table.

Summary of Samples Subjected to Tier I and Tier II Data Validation

		Tier I Only						
Parameter	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	Total	
PCBs	0	0	0	2	1	1	4	
SVOCs	0	0	0	4	1	1	6	
Metals	0	0	0	28	1	1	30	
Total	0	0	0	34	3	3	40	

As specified in the FSP/QAPP, the laboratory sample delivery group package was randomly chosen to be subjected to Tier II review. A Tier II review was also performed to resolve data usability limitations identified from laboratory qualification of the data during the Tier I data review. The Tier II data review consisted of a review of all data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data Validation Functional Guidelines. The Tier II review resulted in the qualification of data for several samples due to minor QA/QC deficiencies. Additionally, all field duplicates were examined for relative percent difference (RPD) compliance with the criteria specified in the FSP/QAPP.

When qualification of the sample data was required, the sample results associated with a QA/QC parameter deviation were qualified in accordance with the procedures outlined in USEPA Region I data validation guidance documents. When the data validation process identified several quality control deficiencies, the cumulative effect of the various deficiencies was employed in assigning the final data qualifier. A summary of the QA/QC parameter deviations that resulted in data qualification is presented below for each analytical method.

4.0 Data Review

The initial calibration criterion for organic analyses requires that the average relative response factor (RRF) has a value greater than 0.05. Sample results were qualified as estimated (J) when this criterion was not met. The compounds that did not meet the initial calibration criterion and the number of samples qualified are presented in the following table.

Compounds Qualified Due to Initial Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
SVOCs	4-Nitroquinoline-1-oxide	6	J
	4-Phenylenediamine	6	J
	Benzidine	6	J

Continuing calibration criterion for SVOCs requires that the continuing calibration RRF have a value greater than 0.05. Sample data for detect and non-detect compounds with RRF values greater than 0.05 were qualified as estimated (J). The compound that exceeded continuing calibration criterion and the number of samples qualified due to those exceedences are presented in the following table.

Compound Qualified Due to Continuing Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
SVOCs	Hexachlorophene	3	J

Several of the organic compounds (including the compounds presented in the above tables detailing RRF deviations) exhibit instrument response factors (RFs) below the USEPA Region I minimum value of 0.05, but meet the analytical method criterion which does not specify minimum RFs for these compounds. These compounds were analyzed by the laboratory at a higher concentration than the compounds that normally exhibit RFs greater than the USEPA Region I minimum value of 0.05 in an effort to demonstrate acceptable response. USEPA Region I guidelines state that non-detect compound results associated with a RF less than the minimum value of 0.05 are to be rejected (R). However, in the case of these select organic compounds, the RF is an inherent problem with the current analytical methodology; therefore, the non-detect sample results were qualified as estimated (J).

The continuing calibration criterion requires that the percent difference (%D) between the initial calibration RRF and the continuing calibration RRF for SVOCs be less than 25%. Sample data for detect and non-detect compounds with %D values that exceeded the continuing calibration criteria were qualified as estimated (J). A summary of the compounds that exceeded the continuing calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Compounds Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
SVOCs	4-Nitroquinoline-1-oxide	3	J
	Hexachlorophene	3	J
	Methapyrilene	3	J

Contract required detection limit (CRDL) standards were analyzed to evaluate instrument performance at low-level concentrations that are near the analytical method CRDL. These standards are required to have recoveries between 80% and 120% to verify that the analytical instrumentation was properly calibrated. When CRDL standard recoveries exceeded the 80% to 120% control limits, the affected samples with detected results at or near the CRDL concentration (less than three times the PQL) were qualified as estimated (J). The analytes that exceeded CRDL criteria and the number of samples qualified due to those deviations are presented in the following table.

Analytes Qualified Due to CRDL Standard Recovery Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Antimony	8	J
	Arsenic	3	J
	Barium	1	J
	Beryllium	7	J
	Cadmium	1	J
	Chromium	1	J
	Cobalt	4	J
	Copper	1	J
	Lead	4	J
	Nickel	2	J
	Selenium	7	J
	Silver	8	J
	Thallium	1	J
	Vanadium	8	J
	Zinc	1	J

Matrix spike/matrix spike duplicate (MS/MSD) sample analysis recovery criteria for inorganics require that the MS/MSD recovery be within 75% to 125%. Associated inorganic sample results with MS/MSD recoveries that were less than the 75% control limit were qualified as estimated (J). The analytes that did not meet MS/MSD recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Analytes Qualified Due to MS/MSD Recovery Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Arsenic	3	J
	Copper	7	J

Internal standard compounds for SVOC analysis are required to have area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts for the continuing calibration standard. SVOC sample results for the associated compounds were qualified as estimated (J) when the internal standard recovery was less than 50% but greater than 20%. Compounds associated with internal standards which did not meet the recovery criteria and the number of samples qualified due to those deviations, are presented in the following table.

Compounds Qualified Due to Internal Standard Deviations

Analysis	Compound	Number of Affected Samples	Qualification
SVOCs	All compounds quantitated under 1,4-dichlorobenzene-d4	1	J
	All compounds quantitated under Acenaphthene-d10	1	J
	All compounds quantitated under Naphthalene-d8	1	J

Field duplicate samples were analyzed to evaluate the overall precision of laboratory and field procedures. The RPD between field duplicate samples is required to be less than 50% for soil sample values greater than five times the PQL for inorganics. Sample results that exceeded these limits were qualified as estimated (J). The analytes that did not meet field duplicate RPD requirements and the number of samples qualified due to those deviations are presented in the following table.

Analytes Qualified Due to Field Duplicate Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Aluminum	7	J
	Antimony	7	J
	Arsenic	7	J
	Cadmium	7	J
	Calcium	7	J
	Chromium	7	J
	Cobalt	7	J
	Copper	7	J
	Lead	7	J
	Manganese	7	J
	Nickel	7	J
	Potassium	7	J
	Selenium	7	J
	Silver	7	J
	Sodium	7	J
	Thallium	7	J
	Vanadium	7	J
	Zinc	7	J

Blank action levels for inorganic analytes detected in the blanks were calculated at five times the detected blank concentrations. Detect sample results that were below the blank action level and above the instrument detection limit (IDL) were qualified as non-detect "U." The analyte detected in method blank which resulted in qualification of sample data, along with the number of affected samples, are presented in the following table.

Analyte Qualified Due to Blank Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Antimony	1	U

Holding time criteria for inorganic analysis requires that soil samples be analyzed within 180 days and mercury 28 days. The analyte that exceeded the holding time and the number of samples qualified due to deviations are presented in the following table.

Compounds Qualified Due to Analysis Holding Time Deviations

Analysis	Compound	Number of Affected Samples	Qualification
SVOCs	Mercury	7	J

Holding time criteria require that samples be stored at 4° C plus or minus 2° . The analyte that exceeded the holding time and the number of samples qualified due to deviations are presented in the following table.

Analytes Qualified Due to Temperature Holding Time Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
Inorganics	Aluminum	7	J
	Antimony	7	J
	Arsenic	7	J
	Barium	7	J
	Beryllium	7	J
	Cadmium	7	J
	Calcium	7	J
	Chromium	7	J
	Cobalt	7	J
	Copper	7	J
	Iron	7	J
	Lead	7	J
	Magnesium	7	J
	Manganese	7	J
	Mercury	7	J
	Nickel	7	J
	Potassium	7	J
	Selenium	7	J
	Silver	7	J
	Sodium	7	J
	Thallium	7	J
	Vanadium	7	J
	Zinc	7	J
PCBs	Aroclor-1016	1	J
	Aroclor-1221	1	J
	Aroclor-1232	1	J

Analytes Qualified Due to Temperature Holding Time Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
PCBs (continued)	Aroclor-1242	1	J
	Aroclor-1248	1	J
	Aroclor-1254	1	J
	Aroclor-1260	1	J
	Total PCBs	1	J

5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability for site characterization purposes. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. The percent usability calculation included analyses evaluated under both the Tier I and Tier II data validation reviews. Data completeness with respect to usability was calculated separately for inorganic and each of the organic analysis. The percent usability calculation also includes quality control samples collected to aid in the evaluation of data usability. Therefore, field/equipment blank, trip blank, and field duplicate data determined to be unusable as a result of the validation process are represented in the percent usability value tabulated in the following table.

Data Usability

Parameter	Percent Usability	Rejected Data
Inorganics	100	None
SVOCs	100	None
PCBs	100	None

The data package completeness, as determined from the Tier I data review, was used in combination with the data quality deviations identified during the Tier II data review to determine overall data quality. As specified in the FSP/QAPP, the overall precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters determined from the Tier I and Tier II data reviews were used as indicators of overall data quality. These parameters were assessed through an evaluation of the results of the field and laboratory QA/QC sample analyses to provide a measure of compliance of the analytical data with the Data Quality Objectives (DQOs) specified in the FSP/QAPP. Therefore, the following sections present summaries of the PARCC parameters assessment with regard to the DQOs specified in the FSP/QAPP.

5.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average value. For this investigation, precision was defined as the RPD between duplicate sample results. The duplicate samples used to evaluate precision included laboratory duplicates, field duplicates, MS/MSD samples, and ICP serial dilution samples. For this analytical program, 18.2% of the data required qualification due to field duplicate RPD deviations. None of the data required qualification due to laboratory duplicate RPD, MS/MSD RPD or ICP serial dilution deviations.

5.2 Accuracy

Accuracy measures the bias in an analytical system or the degree of agreement of a measurement with a known reference value. For this investigation, accuracy was defined as the percent recovery of QA/QC samples that were spiked with a known concentration of an analyte or compound of interest. The QA/QC samples used to evaluate analytical accuracy included instrument calibration, internal standards, Laboratory Control Standards (LCSs), MS/MSD samples, CRDL samples, and surrogate compound recoveries. For this analytical program, 4.3% of the data required qualification due to instrument calibration deviations, 9.7% of the data required qualification due to internal standards deviations, 1.4% of the data required qualification due to MS/MSD recovery deviations, and 8.2% of the data required qualification due to CRDL deviations. None of the data required qualification due to LCS recovery or surrogate compound recovery deviations.

5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in MDEP-approved work plans, and by following the procedures for sample collection/analyses that were described in the FSP/QAPP. Additionally, the analytical program used procedures consistent with USEPA-approved analytical methodology. A QA/QC parameter that is an indicator of the representativeness of a sample is holding time. Holding time criteria are established to maintain the samples in a state that is representative of the in-situ field conditions before analysis. For this analytical program, 1.0% of the data required qualification due to analysis holding time deviations, and 4.5% of the data required qualification due to temperature holding time deviations.

5.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. This goal was achieved through the use of the standardized techniques for sample collection and analysis presented in the FSP/QAPP. The USEPA SW-846¹ analytical methods presented in the FSP/QAPP are updated on occasion by the USEPA to benefit from recent technological advancements in analytical chemistry and instrumentation. In most cases, the method upgrades include the incorporation of new technology that improves the sensitivity and stability of the instrumentation or allows the laboratory to increase throughput without hindering accuracy and precision. Overall, the analytical methods for this investigation have remained consistent in their general approach through continued use of the basic analytical techniques (e.g., sample extraction/preparation, instrument calibration, QA/QC procedures). Through this use of consistent base analytical procedures and by requiring that updated procedures meet the QA/QC criteria specified in the FSP/QAPP, the analytical data from past, present, and future sampling events will be comparable to allow for qualitative and quantitative assessment of site conditions.

5.5 Completeness

Completeness is defined as the percentage of measurements that are judged to be valid or usable to meet the prescribed DQOs. The completeness criterion is essentially the same for all data uses -- the generation of a sufficient amount of valid data. This analytical data set had an overall usability of 100%.

¹ Test Methods for evaluating Solid Waste, SW-846, USEPA, Final Update III, December 1996.

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
PCBs	I									1	
	I9-9-24-SB-10 (0 - 1) SL-0606-DUP-1 (0 - 1)	6/1/2006 6/1/2006	Soil Soil	Tier II	No No						I9-9-24-SB-10
	SL-RB-060206-1	6/2/2006	Water	Tier II	No						13-3-24-06-10
	I9-9-11-SB-9 (10 - 15)	6/8/2006	Soil	Tier II	Yes	Aroclor-1016	Temperature	9.7°C	<4°C	ND(0.059) J	
						Aroclor-1221	Temperature	9.7°C	<4°C	ND(0.059) J	
						Aroclor-1232	Temperature	9.7°C	<4°C	ND(0.059) J	
						Aroclor-1242 Aroclor-1248	Temperature Temperature	9.7°C 9.7°C	<4°C <4°C	ND(0.059) J ND(0.059) J	
						Aroclor-1246 Aroclor-1254	Temperature	9.7°C	<4°C	ND(0.059) J	
						Aroclor-1260	Temperature	9.7°C	<4°C	ND(0.059) J	
						Total PCBs	Temperature	9.7°C	<4°C	ND(0.059) J	
Metals										_	
G135-75	19-10-8-SB-16-SS (0 - 1)	6/1/2006	Soil	Tier II	No					115/5/12	
G135-75	I9-9-18-SB-1-S (0 - 1)	6/1/2006	Soil	Tier II	Yes	Antimony	CRDL Standard %R	53.9%	80% to 120%	ND(3.10) J ND(3.10)	
G135-75	SLB-1BB (1 - 3)	6/1/2006	Soil	Tier II	No	Antimony	Method Blank	-	-	ND(3.10)	
	SLB-1BB (3 - 5)	6/1/2006	Soil	Tier II	No						
	SL-RB-060206-1	6/2/2006	Water	Tier II	Yes	Antimony	CRDL Standard %R	36.3%	80% to 120%	ND(0.0400) J	
						Barium	CRDL Standard %R	49.8%	80% to 120%	0.0289 J	
						Beryllium	CRDL Standard %R	48.4%	80% to 120%	ND(0.0100) J	
						Cadmium	CRDL Standard %R	14.6%	80% to 120%	ND(0.00500) J	
						Chromium Cobalt	CRDL Standard %R CRDL Standard %R	54.6% 41.0%	80% to 120% 80% to 120%	0.000510 J ND(0.0100) J	
						Copper	CRDL Standard %R	57.3%	80% to 120%	0.00190 J	
						Lead	CRDL Standard %R	77.1%	80% to 120%	ND(0.0100) J	
						Nickel	CRDL Standard %R	54.5%	80% to 120%	0.000810 J	
						Selenium	CRDL Standard %R	0.0%	80% to 120%	0.0195 J	
						Silver	CRDL Standard %R	43.7%	80% to 120%	ND(0.0100) J	
						Thallium Vanadium	CRDL Standard %R CRDL Standard %R	25.1% 50.8%	80% to 120% 80% to 120%	ND(0.0100) J ND(0.0500) J	
						Zinc	CRDL Standard %R	43.3%	80% to 120%	0.00456 J	
G135-80	19-9-1-SB-5 (5 - 7)	6/6/2006	Soil	Tier II	No	2.110	OTO E Grandard 7014	10.070	00701012070	0.001000	
G135-80	I9-9-1-SB-5 (7 - 9)	6/6/2006	Soil	Tier II	No						
	I9-9-1-SB-5-N (3 - 5)	6/6/2006	Soil	Tier II	No						
	19-9-1-SB-5-N (5 - 7)	6/6/2006	Soil	Tier II	No						
G135-80 G135-80	I9-9-1-SB-5-S (5 - 7) I9-9-1-SB-5-S (7 - 9)	6/6/2006 6/6/2006	Soil Soil	Tier II	No Yes	Arsenic	MS/MSD %R	55.1%, 48.1%	75% to 125%	7.82 J	
	19-9-1-SB-5-S (9 - 11)	6/6/2006	Soil	Tier II	Yes	Lead	CRDL Standard %R	256.0%	80% to 120%	5.07 J	
G135-80	I9-9-1-SB-6 (9 - 11)	6/6/2006	Soil	Tier II	Yes	Arsenic	MS/MSD %R	55.1%, 48.1%	75% to 125%	5.10 J	
						Lead	CRDL Standard %R	256.0%	80% to 120%	6.01 J	
	I9-9-1-SB-6-S (1 - 3)	6/6/2006	Soil	Tier II	No						
	19-9-1-SB-6-S (3 - 5)	6/6/2006	Soil	Tier II	No No			+			
	I9-9-1-SB-6-S (5 - 7) I9-9-1-SB-6-S (7 - 9)	6/6/2006 6/6/2006	Soil Soil	Tier II	No Yes	Arsenic	MS/MSD %R	55.1%, 48.1%	75% to 125%	10.9 J	
	19-9-1-SB-6-S (7 - 9)	6/6/2006	Soil	Tier II	No	7 11 301 110	ING/NOD /OK	33.170, 40.170	10/010120/0	10.53	
	19-9-1-SB-6-SS (1 - 3)	6/6/2006	Soil	Tier II	No						
	19-9-1-SB-6-SS (3 - 5)	6/6/2006	Soil	Tier II	No						
	19-9-1-SB-6-SS (5 - 7)	6/6/2006	Soil	Tier II	Yes	Lead	CRDL Standard %R	256.0%	80% to 120%	1.32 J	
G135-80	19-9-1-SB-6-SS (7 - 9)	6/6/2006	Soil	Tier II	No						
G135-80 G135-83	I9-9-1-SB-6-SS (9 - 11) I9-9-24-SB-2-SE (13 - 15)	6/6/2006 6/8/2006	Soil Soil	Tier II	No Yes	Aluminum	Field Duplicate RPD (Soil)	60.0%	<50%	4930 J	
G 130-63	13-3-24-3D-2-3E (13 - 15)	0/0/2000	3011	i iei ii	162	Aluminum	Temperature (Soil)	9.7°C	<50% <4°C	4930 J 4930 J	
						Antimony	CRDL Standard %R	131.0%	80% to 120%	1.56 J	
					[Antimony	Field Duplicate RPD (Soil)	124.6%	<50%	1.56 J	
						Antimony	Temperature	9.7°C	<4°C	1.56 J	
					[Arsenic	Field Duplicate RPD (Soil)	67.0%	<50%	18.4 J	
						Arsenic	Temperature	9.7°C	<4°C	18.4 J	
						Barium Bervllium	Temperature CRDL Standard %R	9.7°C 163.0%	<4°C 80% to 120%	100 J 0.521 J	
						Beryllium	Temperature	9.7°C	<4°C	0.521 J	
						Cadmium	Field Duplicate RPD (Soil)	191.1%	<50%	0.357 J	
						Cadmium	Temperature	9.7°C	<4°C	0.357 J	
	1			1		Calcium	Field Duplicate RPD (Soil)	113.8%	<50%	117000 J	

Sample											
Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Metals (continue						_					
G135-83	I9-9-24-SB-2-SE (13 - 15)	6/8/2006	Soil	Tier II	Yes	Calcium	Temperature	9.7°C	<4°C	117000 J	
						Chromium Chromium	Field Duplicate RPD (Soil) Temperature	113.9% 9.7°C	<50% <4°C	10.6 J 10.6 J	
						Cobalt	Field Duplicate RPD (Soil)	52.8%	<50%	12.5 J	
						Cobalt	Temperature	9.7°C	<4°C	12.5 J	
						Copper	Field Duplicate RPD (Soil)	99.7%	<50%	430 J	
						Copper	MS %R	166.0%	75% to 125%	430 J	
						Copper	Temperature	9.7°C	<4°C	430 J	
						Iron	Temperature	9.7°C	<4°C	16300 J	
						Lead Lead	Field Duplicate RPD (Soil) Temperature	68.7% 9.7°C	<50% <4°C	1400 J 1400 J	
						Magnesium	Temperature	9.7°C	<4°C	6260 J	
						Manganese	Field Duplicate RPD (Soil)	122.4%	<50%	1080 J	
						Manganese	Temperature	9.7°C	<4°C	1080 J	
						Mercury	Holdtimes	68 days	<28 days	0.889 J	
						Mercury	Temperature	9.7°C	<4°C	0.889 J	
						Nickel	Field Duplicate RPD (Soil)	59.6%	<50%	76.6 J	
						Nickel	Temperature	9.7°C	<4°C	76.6 J	
						Potassium	Field Duplicate RPD (Soil)	81.6%	<50%	927 J	
						Potassium Selenium	Temperature CRDL Standard %R	9.7°C 70.9%	<4°C 80% to 120%	927 J 2.78 J	
						Selenium	Field Duplicate RPD (Soil)	108.5%	<50%	2.78 J	
						Selenium	Temperature	9.7°C	<4°C	2.78 J	
						Silver	CRDL Standard %R	164.0%	80% to 120%	1.57 J	
						Silver	Field Duplicate RPD (Soil)	122.6%	<50%	1.57 J	
						Silver	Temperature	9.7°C	<4°C	1.57 J	
						Sodium	Field Duplicate RPD (Soil)	82.7%	<50%	1100 J	
						Sodium Thallium	Temperature Field Duplicate RPD (Soil)	9.7°C 175.8%	<4°C <50%	1100 J 0.950 J	
						Thallium	Temperature (Soil)	9.7°C	<50% <4°C	0.950 J	
						Vanadium	CRDL Standard %R	173.0%	80% to 120%	20.2 J	
						Vanadium	Field Duplicate RPD (Soil)	65.4%	<50%	20.2 J	
					Vanadium Temperature Zinc Field Duplicate RPD (Soil)	Vanadium		9.7°C	<4°C	20.2 J	
							104.7%	<50%	798 J		
		- /- /				Zinc	Temperature	9.7°C	<4°C	798 J	
G135-83	19-9-24-SB-2-SE (9 - 11)	6/8/2006	Soil	Tier II	Yes	Aluminum Aluminum	Field Duplicate RPD (Soil) Temperature	60.0% 9.7°C	<50% <4°C	1760 J 1760 J	
						Antimony	Field Duplicate RPD (Soil)	124.6%	<50%	38.1 J	
						Antimony	Temperature	9.7°C	<4°C	38.1 J	
						Arsenic	Field Duplicate RPD (Soil)	67.0%	<50%	5.68 J	
						Arsenic	Temperature	9.7°C	<4°C	5.68 J	
						Barium	Temperature	9.7°C	<4°C	557 J	
						Beryllium	Temperature	9.7°C	<4°C	0.196 J	
						Cadmium	Field Duplicate RPD (Soil)	191.1% 9.7°C	<50% <4°C	4.35 J 4.35 J	
						Cadmium Calcium	Temperature Field Duplicate RPD (Soil)	113.8%	<50%	4.35 J 1380 J	
						Calcium	Temperature	9.7°C	<4°C	1380 J	
						Chromium	Field Duplicate RPD (Soil)	113.9%	<50%	5.24 J	
						Chromium	Temperature	9.7°C	<4°C	5.24 J	
						Cobalt	Field Duplicate RPD (Soil)	52.8%	<50%	4.55 J	
						Cobalt	Temperature	9.7°C	<4°C	4.55 J	
						Copper	Field Duplicate RPD (Soil)	99.7% 166.0%	<50%	18.2 J	
						Copper Copper	MS %R Temperature	9.7°C	75% to 125% <4°C	18.2 J 18.2 J	
						Iron	Temperature	9.7°C	<4°C	6130 J	
						Lead	Field Duplicate RPD (Soil)	68.7%	<50%	153 J	
[Lead	Temperature	9.7°C	<4°C	153 J	
ĺ						Magnesium	Temperature	9.7°C	<4°C	381 J	
[Manganese	Field Duplicate RPD (Soil)	122.4%	<50%	3660 J	-
ĺ						Manganese	Temperature	9.7°C	<4°C	3660 J	
						Mercury Mercury	Holdtimes Temperature	68 days 9.7°C	<28 days <4°C	0.0890 J 0.0890 J	
						Nickel	CRDL Standard %R	9.7°C 127.0%	<4°C 80% to 120%	0.0890 J 3.82 J	
						Nickel	Field Duplicate RPD (Soil)	59.6%	<50%	3.82 J	
	1			1		INICKEI	rielu Duplicate KPD (30II)	ეყ.ნ%	<500%	3.0∠ J	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Metals (continued				T		T	-				
G135-83	19-9-24-SB-2-SE (9 - 11)	6/8/2006	Soil	Tier II	Yes	Nickel	Temperature				
1						Potassium Potassium	Field Duplicate RPD (Soil) Temperature				
1						Selenium	Field Duplicate RPD (Soil)				
1						Selenium	Temperature				
1						Silver	CRDL Standard %R				
1						Silver	Field Duplicate RPD (Soil)	122.6%	<50%	0.724 J	
1						Silver	Temperature	9.7°C	<4°C	0.724 J	
1						Sodium	Field Duplicate RPD (Soil)				
1						Sodium	Temperature				
1						Thallium Thallium	Field Duplicate RPD (Soil)	9.7°C			
1						Vanadium	Temperature CRDL Standard %R				
1						Vanadium	Field Duplicate RPD (Soil)				
1						Vanadium	Temperature				
, [1	Zinc	Field Duplicate RPD (Soil)				
<u>. </u>				<u> </u>		Zinc	Temperature				
G135-83	19-9-24-SB-2-SES (13 - 15)	6/8/2006	Soil	Tier II	Yes	Aluminum	Field Duplicate RPD (Soil)				
						Aluminum	Temperature				
1						Antimony	CRDL Standard %R				
1						Antimony	Field Duplicate RPD (Soil)				
1						Antimony Arsenic	Temperature CRDL Standard %R				
1						Arsenic	Field Duplicate RPD (Soil)				
1						Arsenic	Temperature				
1						Barium	Temperature				
ı						Beryllium	CRDL Standard %R	163.0%	80% to 120%	0.202 J	
1						Beryllium	Temperature				
ı						Cadmium	Field Duplicate RPD (Soil)				
1						Cadmium	Temperature				
ı						Calcium	Field Duplicate RPD (Soil)				Notes
1						Calcium Chromium	Temperature Field Duplicate RPD (Soil)				
1						Chromium	Temperature				
1						Cobalt	CRDL Standard %R				
1						Cobalt	Field Duplicate RPD (Soil)				
1						Cobalt	Temperature				
1						Copper	Field Duplicate RPD (Soil)	99.7%	<50%	236 J	
1						Copper	MS %R				
1						Copper	Temperature				
						Iron	Temperature				
, [1	Lead	Field Duplicate RPD (Soil)				
						Lead Magnesium	Temperature Temperature				
					1	Manganese	Field Duplicate RPD (Soil)				
, [1	Manganese	Temperature				
					1	Mercury	Holdtimes				
						Mercury	Temperature	9.7°C			
					1	Nickel	Field Duplicate RPD (Soil)				
						Nickel	Temperature				
					1	Potassium	Field Duplicate RPD (Soil)				
, [1	Potassium Selenium	Temperature CRDL Standard %R				
					1	Selenium	Field Duplicate RPD (Soil)				
						Selenium	Temperature				
					1	Silver	CRDL Standard %R				
					1	Silver	Field Duplicate RPD (Soil)				
						Silver	Temperature	9.7°C		ND(1.71) J	
					1	Sodium	Field Duplicate RPD (Soil)	82.7%		665 J	
						Sodium	Temperature				
, [1	Thallium	Field Duplicate RPD (Soil)				
, [Ī	Thallium	Temperature	9.7°C	<4°C	ND(1.71) J	
					I	Vanadium	CRDL Standard %R	173.0%	80% to 120%	8.38 J	

Sample Delivery Group No. Metals (continue	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
G135-83	19-9-24-SB-2-SES (13 - 15)	6/8/2006	Soil	Tier II	Yes	Vanadium	Temperature	9.7°C	<4°C	8.38 J	
0 100 00	15 5 24 65 2 626 (16 16)	0/0/2000	Con	110111	103	Zinc	Field Duplicate RPD (Soil)	104.7%	<50%	154 J	
						Zinc	Temperature	9.7°C	<4°C	154 J	
G135-83	I9-9-24-SB-2-SES (9 - 11)	6/8/2006	Soil	Tier II	Yes	Aluminum	Field Duplicate RPD (Soil)	60.0%	<50%	4230 J	
						Aluminum	Temperature	9.7°C	<4°C	4230 J	
						Antimony	CRDL Standard %R	131.0%	80% to 120%	3.32 J	
						Antimony	Field Duplicate RPD (Soil)	124.6%	<50%	3.32 J	
						Antimony	Temperature	9.7°C	<4°C	3.32 J 6.54 J	
						Arsenic Arsenic	Field Duplicate RPD (Soil) Temperature	67.0% 9.7°C	<50% <4°C	6.54 J	
						Barium	Temperature	9.7°C	<4°C	168 J	
						Beryllium	CRDL Standard %R	163.0%	80% to 120%	0.255 J	
						Beryllium	Temperature	9.7°C	<4°C	0.255 J	
						Cadmium	Field Duplicate RPD (Soil)	191.1%	<50%	7.14 J	
						Cadmium	Temperature	9.7°C	<4°C	7.14 J	
						Calcium	Field Duplicate RPD (Soil)	113.8%	<50%	16700 J	
						Calcium	Temperature	9.7°C	<4°C	16700 J	
					I	Chromium	Field Duplicate RPD (Soil)	113.9%	<50%	423 J	
						Chromium	Temperature	9.7°C	<4°C	423 J	
						Cobalt Cobalt	CRDL Standard %R Field Duplicate RPD (Soil)	181.0% 52.8%	80% to 120% <50%	4.49 J 4.49 J	
						Cobalt	Temperature	9.7°C	<4°C	4.49 J	
						Copper	Field Duplicate RPD (Soil)	99.7%	<50%	260 J	
						Copper	MS %R	166.0%	75% to 125%	260 J	
						Copper	Temperature	9.7°C	<4°C	260 J	
						Iron	Temperature	9.7°C	<4°C	49300 J	
						Lead	Field Duplicate RPD (Soil)	68.7%	<50%	1060 J	
						Lead	Temperature	9.7°C	<4°C	1060 J	
						Magnesium	Temperature	9.7°C	<4°C	1780 J	
						Manganese	Field Duplicate RPD (Soil)	122.4% 9.7°C	<50% <4°C	479 J 479 J	
						Manganese Mercury	Temperature Holdtimes	68 days	<28 days	0.560 J	
						Mercury	Temperature	9.7°C	<4°C	0.560 J	
						Nickel	Field Duplicate RPD (Soil)	59.6%	<50%	23.4 J	
						Nickel	Temperature	9.7°C	<4°C	23.4 J	
						Potassium	Field Duplicate RPD (Soil)	81.6%	<50%	446 J	
						Potassium	Temperature	9.7°C	<4°C	446 J	
						Selenium	CRDL Standard %R	70.9%	80% to 120%	0.812 J	
						Selenium					
						Selenium					
						Silver Silver					
					I	Silver					
					1	Sodium					
					1	Sodium	Temperature	9.7°C	<4°C	653 J	
					1	Thallium	Field Duplicate RPD (Soil)	175.8%	<50%	ND(1.65) J	
						Thallium	Temperature	9.7°C	<4°C	ND(1.65) J	
					1	Vanadium	CRDL Standard %R	173.0%	80% to 120%	13.7 J	
					1	Vanadium	Field Duplicate RPD (Soil)	65.4%	<50%	13.7 J	
			1		1	Vanadium					
					I	Zinc Zinc					
G135-83	I9-9-24-SB-2-W (13 - 15)	6/8/2006	Soil	Tier II	Yes	Aluminum					
C 100-00	10 0-24-0D-2-W (10 - 10)	0/0/2000	3011	i iei ii	162	Aluminum					
					1	Antimony	Field Duplicate RPD (Soil) 175.8% <50% ND(1.65) J Temperature 9.7°C <4°C ND(1.65) J CRDL Standard %R 173.0% 80% to 120% 13.7 J				
			1		1	Antimony					
					1	Antimony	Inium Temperature 9.7°C <4°C 0.812 J				
					I	Arsenic		169.0%			
					1	Arsenic					-
1					A B B	Arsenic					
						Barilium	Temperature	9.7°C	<4°C	47.9 J	
1						Beryllium Beryllium	CRDL Standard %R	163.0% 9.7°C	80% to 120% <4°C	0.340 J 0.340 J	
	1						perymuiti	Temperature	9.7 0	<4 U	U.34U J

Sample											
Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Metals (continue	ed)										
G135-83	I9-9-24-SB-2-W (13 - 15)	6/8/2006	Soil	Tier II	Yes	Cadmium	Field Duplicate RPD (Soil)	191.1%	<50%	ND(1.16) J	
						Cadmium	Temperature	9.7°C	<4°C	ND(1.16) J	
						Calcium Calcium	Field Duplicate RPD (Soil) Temperature	113.8% 9.7°C	<50% <4°C	7450 J 7450 J	
						Chromium	Field Duplicate RPD (Soil)	113.9%	<50%	9.28 J	
						Chromium	Temperature	9.7°C	<4°C	9.28 J	
						Cobalt	Field Duplicate RPD (Soil)	52.8%	<50%	5.61 J	
						Cobalt	Temperature	9.7°C	<4°C	5.61 J	
						Copper	Field Duplicate RPD (Soil) MS %R	99.7% 166.0%	<50% 75% to 125%	75.5 J 75.5 J	
						Copper Copper	Temperature	9.7°C	75% to 125% <4°C	75.5 J 75.5 J	
						Iron	Temperature	9.7°C	<4°C	45400 J	
						Lead	Field Duplicate RPD (Soil)	68.7%	<50%	102 J	
						Lead	Temperature	9.7°C	<4°C	102 J	
						Magnesium	Temperature	9.7°C	<4°C	1470 J	
						Manganese	Field Duplicate RPD (Soil)	122.4%	<50%	521 J	
						Manganese	Temperature Holdtimes	9.7°C	<4°C	521 J 0.213 J	
						Mercury Mercury	Temperature	68 days 9.7°C	<28 days <4°C	0.213 J 0.213 J	
						Nickel	Field Duplicate RPD (Soil)	59.6%	<50%	13.8 J	
						Nickel	Temperature	9.7°C	<4°C	13.8 J	
						Potassium	Field Duplicate RPD (Soil)	81.6%	<50%	399 J	
						Potassium	Temperature	9.7°C	<4°C	399 J	
						Selenium	CRDL Standard %R	70.9%	80% to 120%	ND(2.27) J	
						Selenium Selenium	Field Duplicate RPD (Soil) Temperature	108.5% 9.7°C	<50% <4°C	ND(2.27) J ND(2.27) J	
						Silver	CRDL Standard %R	164.0%	80% to 120%	ND(2.27) 3 ND(1.14) J	
						Silver	Field Duplicate RPD (Soil)	122.6%	<50%	ND(1.14) J	
						Silver	Temperature	9.7°C	<4°C	ND(1.14) J	
						Sodium	Field Duplicate RPD (Soil)	82.7%	<50%	134 J	
						Sodium	Temperature	9.7°C	<4°C	134 J	
						Thallium Thallium	Field Duplicate RPD (Soil) Temperature	175.8% 9.7°C	<50% <4°C	ND(1.14) J ND(1.14) J	
						Vanadium	CRDL Standard %R	173.0%	80% to 120%	13.5 J	
						Vanadium	Field Duplicate RPD (Soil)	65.4%	<50%	13.5 J	
						Vanadium	Temperature	9.7°C	<4°C	13.5 J	
						Zinc	Field Duplicate RPD (Soil)	104.7%	<50%	62.6 J	
0.105.00	10.0.04.00.014.(044)	0/0/0000	0 "	- u		Zinc	Temperature	9.7°C	<4°C	62.6 J	
G135-83	I9-9-24-SB-2-W (9 - 11)	6/8/2006	Soil	Tier II	Yes	Aluminum Aluminum	Field Duplicate RPD (Soil)	60.0% 9.7°C	<50% <4°C	7360 J 7360 J	
						Antimony	Temperature CRDL Standard %R	131.0%	80% to 120%	2.09 J	
						Antimony	Field Duplicate RPD (Soil)	124.6%	<50%	2.09 J	
						Antimony	Temperature	9.7°C	<4°C	2.09 J	
						Arsenic	CRDL Standard %R	169.0%	80% to 120%	2.68 J	
						Arsenic	Field Duplicate RPD (Soil)	67.0%	<50%	2.68 J	
						Arsenic Barium	Temperature Temperature	9.7°C 9.7°C	<4°C <4°C	2.68 J 182 J	
						Beryllium	CRDL Standard %R	163.0%	80% to 120%	0.240 J	
						Beryllium	Temperature	9.7°C	<4°C	0.240 J	
						Cadmium	Field Duplicate RPD (Soil)	191.1%	<50%	1.48 J	
						Cadmium	Temperature	9.7°C	<4°C	1.48 J	
						Calcium	Field Duplicate RPD (Soil)	113.8% 9.7°C	<50% <4°C	9780 J 9780 J	
						Calcium Chromium	Temperature Field Duplicate RPD (Soil)	9.7°C 113.9%	<4°C <50%	9780 J 14.5 J	Notes
						Chromium	Temperature	9.7°C	<4°C	14.5 J	
						Cobalt	Field Duplicate RPD (Soil)	52.8%	<50%	6.24 J	
						Cobalt	Temperature	9.7°C	<4°C	6.24 J	
						Copper	Field Duplicate RPD (Soil)	99.7%	<50%	76.1 J	
						Copper	MS %R	166.0%	75% to 125%	76.1 J	
1						Copper Iron	Temperature Temperature	9.7°C 9.7°C	<4°C <4°C	76.1 J 28200 J	
						Lead	Field Duplicate RPD (Soil)	68.7%	<50%	575 J	
						Lead	Temperature	9.7°C	<4°C	575 J	
						Magnesium	Temperature	9.7°C	<4°C	2950 J	

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
Metals (continue G135-83	19-9-24-SB-2-W (9 - 11)	6/8/2006	Soil	Tior II	Voc	Manganasa	Field Duplicate RRD (Soil)	122.40/	-E00/	200 1	T
G 133-63	19-9-24-3D-2-W (9 - 11)	0/0/2000	3011	Tier I							
							Field Duplicate RPD (Soil)				
										4.73 J	
						Nickel	Field Duplicate RPD (Soil)	59.6%	<50%	19.6 J	
						Silver	Field Duplicate RPD (Soil)	122.6%	<50%	ND(1.34) J	
						Silver		9.7°C	<4°C	ND(1.34) J	
							(/				
					1						
			06 Soil								
						Zinc	Temperature		<4°C		
G135-83	SL-0606-DUP-3 (9 - 11)	6/8/2006		Tier II	Yes	Aluminum	Field Duplicate RPD (Soil)	60.0%	<50%	3270 J	I9-9-24-SB-2-SE
								131.0% 8 124.6%			
						Ž					
								163.0%			
						Cobalt	Field Duplicate RPD (Soil)	52.8%	<50%	2.65 J	
						Cobalt					
					1						
					1						
					1						
					1						
					1						
						Potassium					
					1	Selenium					
					1	Selenium					
						Selenium					
						Silver					
					1	Silver					
					1	Silver Sodium					
					1	Sodium					
		l			1	oodidiii	romporature	3.1 U	\ - - U	UU4 J	l .

Sample Delivery Group No. Metals (continu	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
G135-83	SL-0606-DUP-3 (9 - 11)	6/8/2006	Soil	Tier II	Yes	Thallium	Field Duplicate RPD (Soil)	175.8%	<50%	17.2 J	
	, ,					Thallium	Temperature	9.7°C	<4°C	17.2 J	
						Vanadium	CRDL Standard %R	173.0%	80% to 120%	15.3 J	
						Vanadium	Field Duplicate RPD (Soil)	65.4%	<50%		
						Vanadium	Temperature	9.7°C	<4°C		
						Zinc Zinc	Field Duplicate RPD (Soil) Temperature	104.7% 9.7°C	<50% <4°C		
SVOCs				I		Ziio	Tomporatoro	3.7 0	1.0	100000	<u> </u>
G135-75	RA-3-SB-15-EE (0 - 1)	6/2/2006	Soil	Tier II	Yes	4-Nitroquinoline-1-oxide	ICAL RRF	0.019	>0.05	ND(36) J	
	, ,					4-Phenylenediamine	ICAL RRF	0.024	>0.05	ND(15) J	
						Benzidine	ICAL RRF	0.015	>0.05	ND(15) J	
						Hexachlorophene	CCAL RRF	0.042	>0.05		
G135-75	RA-3-SB-15-EE (1 - 3)	6/2/2006	Soil	Tier II	Yes	4-Nitroquinoline-1-oxide	ICAL RRF	0.019	>0.05		
						4-Nitroquinoline-1-oxide	CCAL %D ICAL RRF	36.8% 0.024	<25% >0.05		
						4-Phenylenediamine Benzidine	ICAL RRF	0.024	>0.05		
						Hexachlorophene	CCAL %D	44.0%	<25%		
						Methapyrilene	CCAL %D	37.4%	<25%		
G135-75	RA-3-SB-15-WW (1 - 3)	6/2/2006	Soil	Tier II	Yes	4-Nitroquinoline-1-oxide	ICAL RRF	0.019	>0.05	ND(360) J	
	, ,					4-Nitroquinoline-1-oxide	CCAL %D	36.8%	<25%	ND(360) J	
						4-Phenylenediamine	ICAL RRF	0.024	>0.05	ND(140) J	
						Benzidine	ICAL RRF	0.015	>0.05		
						Hexachlorophene	CCAL %D	44.0%	<25%		
110E 7E	CL OCOC DUD 3 (4 3)	6/2/2006	Coil	Tier II	Vaa	Methapyrilene	CCAL %D	37.4%	<25%		DA 2 CD 45 FF
G135-75	SL-0606-DUP-2 (1 - 3)	6/2/2006	Soil	Tier II	Yes	4-Nitroquinoline-1-oxide 4-Nitroquinoline-1-oxide	ICAL RRF CCAL %D	0.019 36.8%	>0.05 <25%		RA-3-SB-15-EE
						4-Phenylenediamine	ICAL RRF	0.024	>0.05	17.2 J 17.2 J 17.2 J 15.3 J 15.3 J 15.3 J 10900 J 10900 J ND(36) J ND(15) J ND(15) J ND(7.3) J ND(35) J ND(35) J ND(14) J ND(14) J ND(14) J ND(7.0) J ND(7.0) J ND(360) J ND(360) J ND(140) J ND(141) J	
						Benzidine	ICAL RRF	0.015	>0.05		
						Hexachlorophene	CCAL %D	44.0%	<25%	17.2 J 17.2 J 17.2 J 15.3 J 15.3 J 15.3 J 15.3 J 10900 J 10900 J 10900 J ND(15) J ND(15) J ND(15) J ND(15) J ND(15) J ND(15) J ND(14) J ND(7.0) J ND(36) J ND(36) J ND(36) J ND(36) J ND(140) J ND(70) J ND(360) J ND(140) J ND(71) J ND(70) J ND(87) J ND(87) J ND(87) J ND(9.87)	
						Methapyrilene	CCAL %D	37.4%	<25%	ND(7.0) J	
G135-75	SLB-1BB (0 - 1)	6/1/2006	Soil	Tier II	Yes	1,2,4,5-Tetrachlorobenzene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						1,2,4-Trichlorobenzene	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%		
						1,3-Dinitrobenzene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						1,4-Naphthoquinone	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						1-Naphthylamine 2,3,4,6-Tetrachlorophenol	Internal Standard Acenaphthene-d10 %R Internal Standard Acenaphthene-d10 %R	45.6% 45.6%	50% to 200% 50% to 200%		
						2,4,5-Trichlorophenol	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						2,4,6-Trichlorophenol	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						2,4-Dichlorophenol	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%		
						2,4-Dimethylphenol	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%		
						2,4-Dinitrophenol	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						2,4-Dinitrotoluene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						2,6-Dichlorophenol	Internal Standard Naphthalene-d8 %R	42.1% 45.6%	50% to 200%		
						2,6-Dinitrotoluene 2-Chloronaphthalene	Internal Standard Acenaphthene-d10 %R Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200% 50% to 200%		
						2-Chlorophenol	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%		
						2-Methylnaphthalene	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%		
						2-Methylphenol	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%		
						2-Naphthylamine	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						2-Nitroaniline	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						2-Nitrophenol	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%		
						2-Picoline	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%		
						3&4-Methylphenol	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%		
						3-Nitroaniline 4-Chloro-3-Methylphenol	Internal Standard Acenaphthene-d10 %R Internal Standard Naphthalene-d8 %R	45.6% 42.1%	50% to 200% 50% to 200%		
						4-Chloroaniline	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%		+
						4-Chlorophenyl-phenylether	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						4-Nitroaniline	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						4-Nitrophenol	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		
						4-Nitroquinoline-1-oxide	ICAL RRF	0.019	>0.05		
						4-Phenylenediamine	ICAL RRF	0.024	>0.05		
						5-Nitro-o-toluidine	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%		<u> </u>
						Acenaphthene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	1

Sample											
Delivery Group		Date		Validation							
No.	Sample ID	Collected	Matrix	Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
SVOCs (continu	ied)										
G135-75	SLB-1BB (0 - 1)	6/1/2006	Soil	Tier II		Acenaphthylene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	0.69 J	
						Acetophenone	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						Aniline	Internal Standard 1.4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Benzidine	ICAL RRF	0.015	>0.05	ND(1.7) J	
						Benzyl Alcohol	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(1.7) J	
						bis(2-Chloroethoxy)methane	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						bis(2-Chloroethyl)ether	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						bis(2-Chloroisopropyl)ether	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Dibenzofuran	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						Diethylphthalate	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						Dimethylphthalate	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						Ethyl Methanesulfonate	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Fluorene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						Hexachlorobutadiene	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						Hexachlorocyclopentadiene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(1.7) J	
						Hexachloroethane	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Hexachlorophene	CCAL RRF	0.042	>0.05	ND(0.87) J	
						Hexachloropropene	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(1.7) J	
						Isophorone	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						Isosafrole	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						Methyl Methanesulfonate	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Naphthalene	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	0.17 J	
						Nitrobenzene	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						N-Nitrosodiethylamine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						N-Nitrosodimethylamine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						N-Nitroso-di-n-butylamine	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						N-Nitroso-di-n-propylamine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						N-Nitrosomethylethylamine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						N-Nitrosomorpholine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						N-Nitrosopiperidine	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						N-Nitrosopyrrolidine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						o,o,o-Triethylphosphorothioate	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
						o-Toluidine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Pentachlorobenzene	Internal Standard Acenaphthene-d10 %R	45.6%	50% to 200%	ND(0.87) J	
						Pentachloroethane	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Phenol	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	2.2 J	
						Pyridine	Internal Standard 1,4-dichlorobenzene-d4 %R	44.8%	50% to 200%	ND(0.87) J	
						Safrole	Internal Standard Naphthalene-d8 %R	42.1%	50% to 200%	ND(0.87) J	
G135-75	SL-RB-060206-1	6/2/2006	Water	Tier II	Yes	4-Nitroquinoline-1-oxide	ICAL RRF	0.019	>0.05	ND(0.050) J	
	'		ŀ	1		4-Phenylenediamine	ICAL RRF	0.024	>0.05	ND(0.020) J	
1						Benzidine	ICAL RRF	0.015	>0.05	ND(0.020) J	
[Hexachlorophene	CCAL RRF	0.042	>0.05	ND(0.010) J	· · · · · · · · · · · · · · · · · · ·