



GE
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USA

December 3, 2007

Ms. Susan C. Svirsky
Project Manager
U.S. Environmental Protection Agency
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Re: Summary of Recent Field Investigation and Analytical Results Related to
Silver Lake Bank Materials
GE – Pittsfield/Housatonic River Site, Pittsfield, Massachusetts
Silver Lake Area (GECD600)

Dear Ms. Svirsky:

In a letter submitted to the U.S. Environmental Protection Agency (EPA) on August 22, 2006, the General Electric Company (GE) proposed to remove certain bank materials within the Silver Lake Removal Action Area (RAA) in conjunction with the implementation of a pilot study for Silver Lake sediments. EPA conditionally approved the proposed removal activities in a letter dated August 30, 2006. Between November 8 and 10, 2006, GE removed approximately 70 cubic yards (cy) of bank material to depths generally extending up to 3 feet below ground surface (bgs) from a small area on the east shore of the lake (Figure 1). These removal activities were documented in a letter report submitted to EPA on May 10, 2007.

During the course of the removal activities, an area of stained soil was encountered near the northern extent of the removal area (Figure 1). As a result, and following discussion with EPA, GE collected a representative sample of the stained materials for analysis of polychlorinated biphenyls (PCBs) and other non-PCB Appendix IX+3 constituents. The sample was collected from excavated materials that had been staged prior to transport for appropriate disposal. Although the analytical results related to this sample indicated relatively low PCB concentrations [9.0 milligrams/kilogram (mg/kg)], following review of the entire analytical results package and related discussion with EPA, GE agreed to perform additional investigations related to the nature and potential extent of the stained materials. As such, in the May 10, 2007 letter report, GE included a plan for further investigative activities including additional sample collection and related analyses. EPA provided conditional approval of the proposed investigations in a letter dated June 12, 2007.

This letter summarizes the performance of the activities that had been proposed by GE, and presents the associated analytical results.

Summary of Investigative Activities

In accordance with GE's May 10, 2007 letter to EPA, field investigations and sample collection were initiated on July 12, 2007 by ARCADIS BBL (ABBL). The samples were submitted to SGS Environmental Services, Inc. (SGS) for analysis as described below. All field and analytical activities were performed in accordance with GE's approved Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP) (last updated in March 2007).

On July 12, 2007, bank soil cores were collected from 3 locations to a maximum depth of 6 feet. During processing, staining (black fine sand) and petroleum odors were noted at elevations generally between 3-

to 4-foot bgs in all 3 cores (Figure 1). Note that all 3 cores (i.e., SL-PILOTBANK-1, -2, and -3) were installed at similar approximate surface elevations, suggesting that the observations of staining and odors in these cores were all made with respect to soil from the same approximate subsurface strata. As a result of the staining and odors noted in the cores collected on July 12, 3 additional cores were collected on July 13, 2007 (SL-PILOTBANK-4, -5, and -6) at locations selected in the field following consultation with EPA. These cores were installed at various surface elevations and advanced to a maximum depth of 12 feet bgs, in an effort to reach subsurface elevations similar to those where staining and odors had been noted the previous day. Similar staining and odors were noted for each of these three additional cores from the same approximate subsurface elevation as the previous days observations.

Based on the apparent similarity of the stained materials, and with EPA's consent, sub-samples of the stained materials were collected only from the three cores collected on July 12 (i.e., SL-PILOTBANK-1, -2, and -3). Sub-samples of the stained materials were collected, homogenized, and submitted for analysis of PCBs, volatile organic carbons (VOCs), semi-volatile organic carbons (SVOCs), and total petroleum hydrocarbons (TPH).

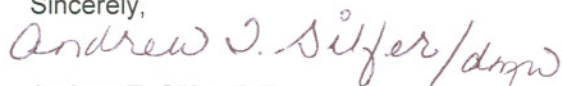
Summary of Analytical Results

A summary of the analytical results of the samples collected as part of this investigation is presented in Table 1. Total PCB detections in the samples collected ranged from 1.84 to 180 mg/kg. VOCs and SVOCs were detected at relatively low concentrations at all three sample locations. Extractable petroleum hydrocarbons (EPH) were detected in samples from all three locations ranging in concentration from 840 to 20,000 mg/kg. Volatile petroleum hydrocarbons (VPH) were detected in SL-PILOTBANK-1 (2- to 4-foot increment) and SL-PILOTBANK-2 (4- to 6-foot increment) ranging from 10 to 350 mg/kg. Based on the PCB concentrations, low VOC and SVOC concentrations, and the elevated EPH and low VPH concentrations, it appears the staining may be related to weathered petroleum products and not PCBs or PCB non-aqueous phase liquids (NAPLs).

GE also reviewed the boring logs and sample descriptions for bank samples collected at various properties around the lake as part of the soil investigations. The locations were classified as either containing stained soils or not. The results are shown on Figure 2. This analysis indicates that stained soils are present at various locations around the lake and that further sampling would yield similar results. Therefore, GE does not propose to perform additional investigations of staining in the Silver Lake bank soils. Nonetheless, due to the potential presence of similar materials in bank soils at or near the water surface, GE will include discussion of contingency plans related to potentially encountering similarly stained materials and/or NAPL as part future RD/RA documents related to Silver Lake banks soils and sediments.

Please contact me with questions or comments.

Sincerely,



Andrew T. Silfer, P.E.
GE Project Coordinator

ATS/dmn
Attachments

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Public Information Repositories
GE Internal Repositories

* without attachments

**TABLE 1
SILVER LAKE BANK SOIL SAMPLING**

**SILVER LAKE BANK SOIL INVESTIGATIONS
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight milligrams per kilogram, mg/kg)**

Sample ID: Sample Depth(Feet): Date Collected:	SL-PILOTBANK-1 2-4 07/12/07	SL-PILOTBANK-2 3-6 07/12/07	SL-PILOTBANK-2 4-6 07/12/07	SL-PILOTBANK-3 1-4 07/12/07	SL-PILOTBANK-3 2-4 07/12/07
Volatile Organics					
1,1-Dichloroethane	ND(0.10)	NA	0.011 J	NA	ND(0.0038)
Acetone	ND(0.52)	NA	ND(0.22)	NA	0.035
Benzene	0.53	NA	0.21	NA	ND(0.0038)
Carbon Disulfide	ND(0.10)	NA	ND(0.044)	NA	0.0092
Chlorobenzene	0.089 J	NA	0.014 J	NA	ND(0.0038)
Ethylbenzene	0.36	NA	0.19	NA	ND(0.0038)
Methylene Chloride	0.26 J	NA	0.098 J	NA	ND(0.0038)
Tetrachloroethene	0.99	NA	0.081	NA	ND(0.0038)
Toluene	1.1	NA	0.13	NA	ND(0.0038)
trans-1,2-Dichloroethene	0.13	NA	0.035 J	NA	ND(0.0038)
Trichloroethene	0.64	NA	0.10	NA	ND(0.0038)
Vinyl Chloride	ND(0.10)	NA	0.025 J	NA	ND(0.0038)
Xylenes (total)	1.7	NA	0.92	NA	ND(0.0038)
PCBs					
Aroclor-1254	ND(44)	0.84	NA	ND(15)	NA
Aroclor-1260	180	1.0	NA	31	NA
Total PCBs	180	1.84	NA	31	NA
Semivolatile Organics					
1,3-Dichlorobenzene	0.96 J	ND(4.0)	NA	ND(1.9)	NA
1,4-Dichlorobenzene	1.7 J	ND(4.0)	NA	ND(1.9)	NA
2-Chloronaphthalene	2.2 J	ND(4.0)	NA	ND(1.9)	NA
Acenaphthene	3.0 J	ND(4.0)	NA	ND(1.9)	NA
Aniline	7.6	ND(4.0)	NA	ND(1.9)	NA
Anthracene	5.9	ND(4.0)	NA	ND(1.9)	NA
Benzo(a)anthracene	11	ND(4.0)	NA	ND(1.9)	NA
Benzo(a)pyrene	8.9	ND(4.0)	NA	0.35 J	NA
Benzo(b)fluoranthene	11	ND(4.0)	NA	0.40 J	NA
Benzo(g,h,i)perylene	6.9	ND(4.0)	NA	ND(1.9)	NA
Benzo(k)fluoranthene	4.0 J	ND(4.0)	NA	ND(1.9)	NA
bis(2-Ethylhexyl)phthalate	3.0 J	ND(4.0)	NA	ND(1.9)	NA
Chrysene	16	0.56 J	NA	0.52 J	NA
Dibenzofuran	1.1 J	ND(4.0)	NA	ND(1.9)	NA
Di-n-Butylphthalate	6.2	ND(4.0)	NA	ND(1.9)	NA
Fluoranthene	23	0.84 J	NA	0.56 J	NA
Fluorene	4.7	ND(4.0)	NA	ND(1.9)	NA
Indeno(1,2,3-cd)pyrene	7.4	ND(4.0)	NA	ND(1.9)	NA
Naphthalene	2.2 J	0.60 J	NA	ND(1.9)	NA
Phenanthrene	25	ND(4.0)	NA	0.33 J	NA
Pyrene	22	1.0 J	NA	0.73 J	NA
Extractable Petroleum Hydrocarbons					
C11-C22 Aromatic Hydrocarbons	2700	1000	NA	840	NA
C19-C36 Aliphatic Hydrocarbons	20000	2600	NA	1900	NA
C9-C18 Aliphatic Hydrocarbons	6500	930	NA	920	NA
Volatile Petroleum Hydrocarbons					
C5-C8 Aliphatic Hydrocarbons	ND(10)	NA	10	NA	ND(10)
C9-C10 Aromatic Hydrocarbons	39	NA	350	NA	ND(10)
C9-C12 Aliphatic Hydrocarbons	45	NA	61	NA	ND(10)

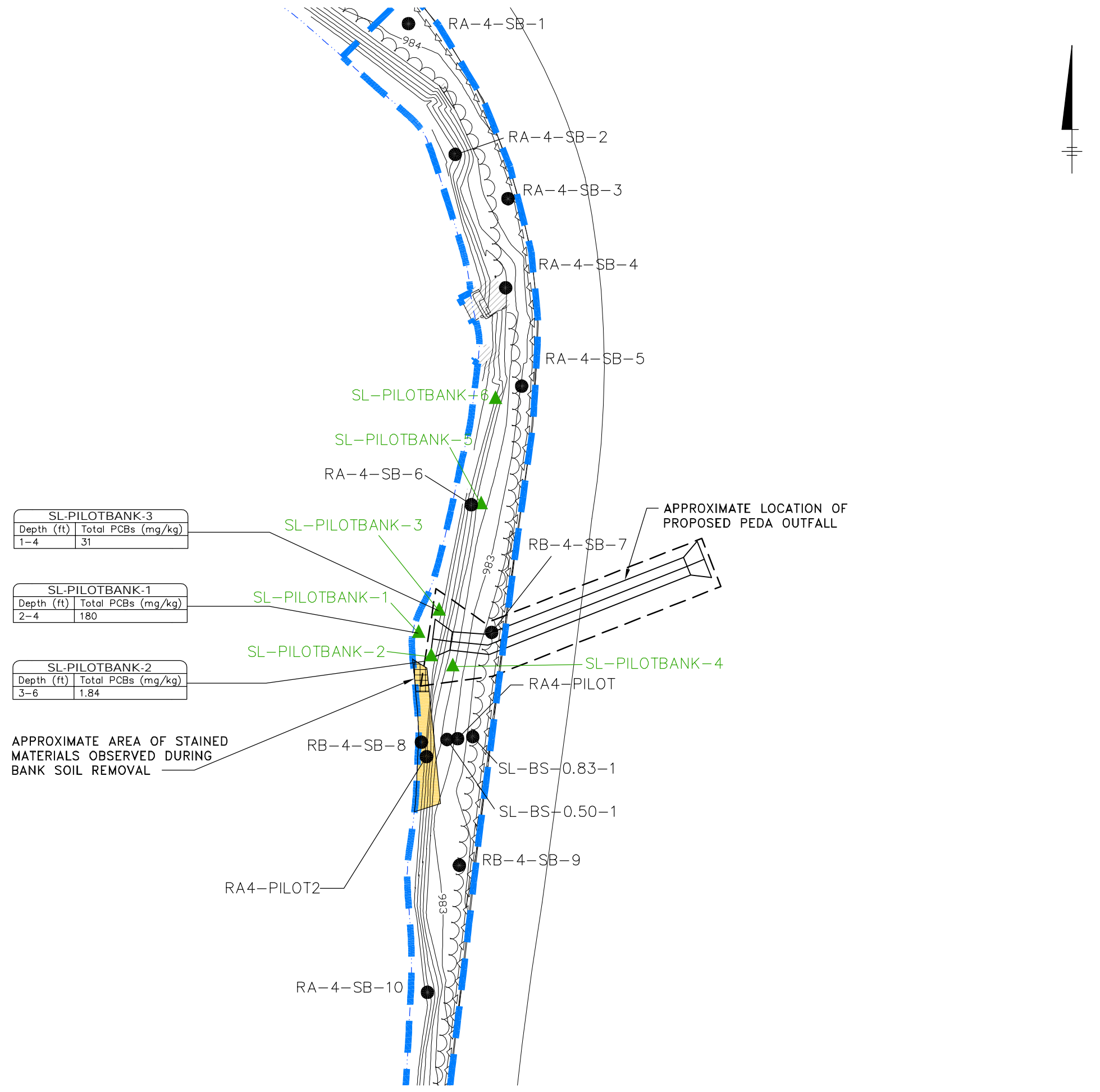
Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of volatiles, PCBs, semivolatiles, extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) .
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. Only those constituents detected in one or more samples are summarized.

Data Qualifiers:

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

SYR-R5-LUP.MLS.LAF LAYER: ON=*, OFF=REF*.ibnd*, ED=CONCRETE, MISC, ISTRUCTURE=DRAIN, TEXT, TEXT=GAS, U=OH, U=W
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SL-PILOTBANK-3	
Depth (ft)	Total PCBs (mg/kg)
1-4	31

SL-PILOTBANK-1	
Depth (ft)	Total PCBs (mg/kg)
2-4	180

SL-PILOTBANK-2	
Depth (ft)	Total PCBs (mg/kg)
3-6	1.84

APPROXIMATE AREA OF STAINED MATERIALS OBSERVED DURING BANK SOIL REMOVAL

APPROXIMATE LOCATION OF PROPOSED PEDA OUTFALL



- LEGEND:**
- RECREATIONAL AREA 4 BOUNDARY
 - SURFACE ELEVATION (1-FT CONTOUR)
 - GUARDRAIL
 - MEAN WATER ELEV (975.9 FT) (APPROX.)
 - HISTORICAL AND PRE-DESIGN BANK SOIL SAMPLE LOCATIONS
 - 2007 BANK MATERIAL CHARACTERIZATION SAMPLE COLLECTION LOCATION
 - APPROXIMATE AREA OF BANK SOIL REMOVAL
 - APPROXIMATE AREA OF STAINED MATERIALS ENCOUNTERED DURING BANK SOIL REMOVAL ACTIVITIES

- NOTES:**
- BASE MAP MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV A, DATED 3/15/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN.
 - ADDITIONAL BASE MAPPING FOR BANK SOIL REMOVAL MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, PROVIDED 2/16/07.
 - ALL SAMPLE LOCATIONS SHOWN ARE APPROXIMATE.



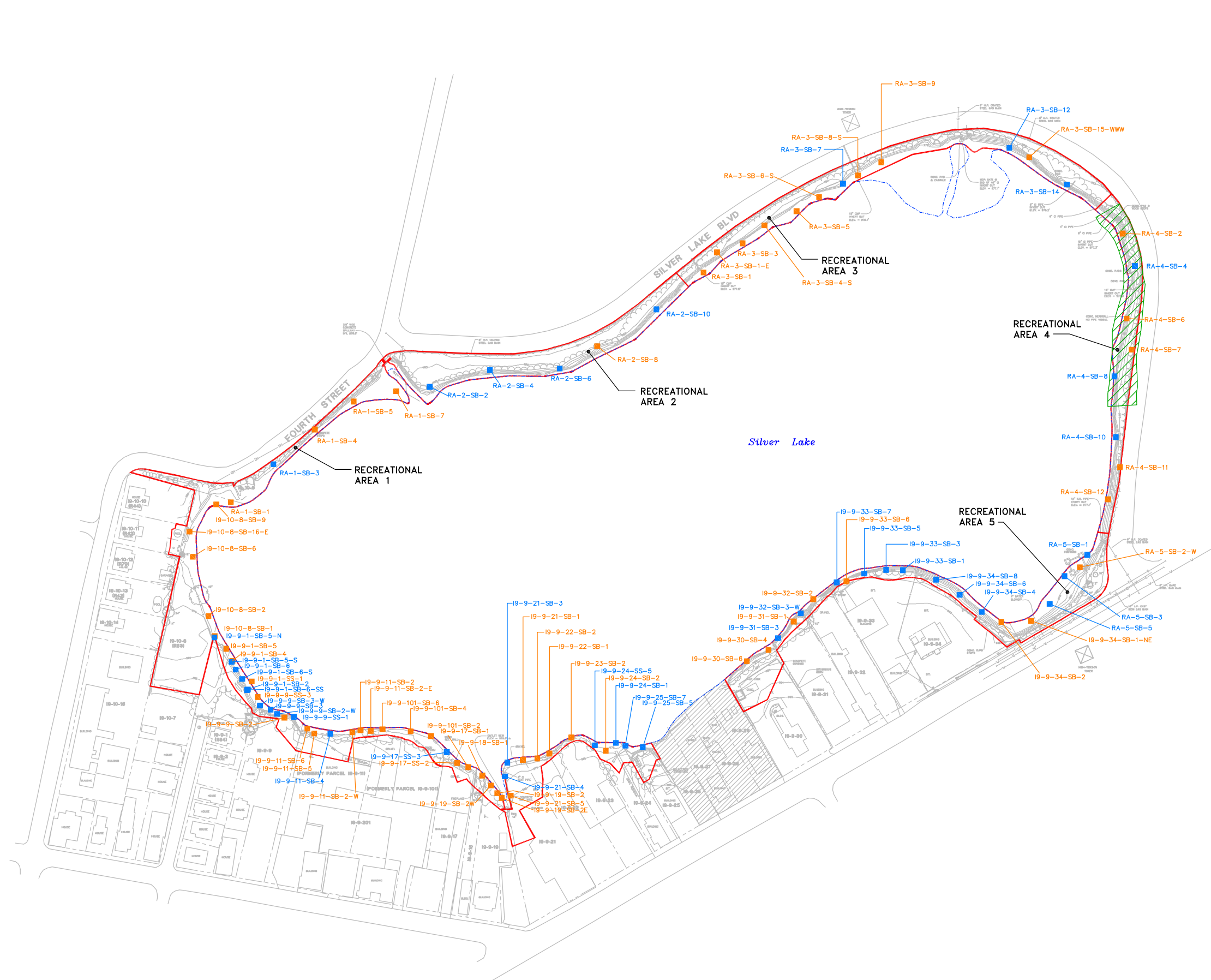
GENERAL ELECTRIC COMPANY
 PITTSFIELD, MASSACHUSETTS
SILVER LAKE BANK SOIL INVESTIGATIONS

**BANK MATERIAL COLLECTION
 LOCATIONS ADJACENT TO SILVER LAKE**

ARCADIS BBL
Infrastructure, environment, facilities

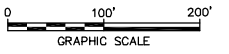
FIGURE
1

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- LEGEND:**
- MEAN WATER ELEV (975.9) (APPROX.)
 - APPROXIMATE SILVER LAKE BANK SOIL RAA
 - APPROXIMATE PROPERTY LINE
 - PROPERTY ID
 - SURFACE ELEVATION (1-FT CONTOUR)
 - EDGE OF BUSHES
 - GUARDRAIL
 - CHAIN LINK FENCE
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - GAS SERVICE
 - WATER SERVICE
 - STORM SEWER
 - SANITARY MANHOLE
 - CATCH BASIN
 - UTILITY POLE
 - SIGN
 - ELECTRIC METER
 - PROPERTY ADDRESSED AS PART OF ADMINISTRATIVE CONSENT ORDER WITH MDEP
 - LOWER BANK SOIL BORING LOCATIONS
 - LOWER BANK SOIL BORING LOCATIONS WITH EVIDENCE OF STAINING
 - APPROXIMATE AREA OF 2007 LOWER BANK SOIL INVESTIGATION

- NOTES:**
1. BASE MAP INFORMATION ADJACENT TO SILVER LAKE MODIFIED FROM ELECTRONIC FILE OF SURVEY PERFORMED BY HILL ENGINEERS, ARCHITECTS AND PLANNERS, DRAWING NO. CX101, REV C, DATED 9/26/06. DUE TO SNOW COVER AT TIME OF SURVEY, ALL PHYSICAL FEATURES MAY NOT BE SHOWN. OTHER BASE MAP INFORMATION PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1990 AERIAL PHOTOGRAPHS.
 2. UTILITY LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN.



GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

SILVER LAKE BANK SOIL INVESTIGATIONS

PREVIOUS INVESTIGATION LOCATIONS

FIGURE

2