



**General Electric Company**  
**Albany, New York**

**Data Summary Report – 2010**  
**Floodplain Soil Sampling**  
**Activities**

Upper Hudson River Floodplains

February 2011

**Data Summary Report -  
2010 Floodplain Soil Sampling  
Activities**

Upper Hudson River Floodplains

Prepared for:  
General Electric Company

Prepared by:  
ARCADIS of New York, Inc.  
465 New Karner Road, First Floor  
Albany  
New York 12205-3839  
Tel 518.452.7826  
Fax 518.452.7086

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## **1. Introduction**

This Data Summary Report – 2010 Floodplain Soil Sampling Activities (DSR) has been prepared to describe and present the results of the Upper Hudson River (UHR) floodplain soil sampling activities that were completed by the General Electric Company (GE) in June and October 2010. The objectives of the 2010 sampling activities were to collect additional floodplain soil data on certain properties to support planning and design of potential 2010 short-term response actions (June 21 to June 22, 2010 sampling event), and to characterize polychlorinated biphenyl (PCB) concentrations on certain properties containing previously un-sampled potential human use areas (October 19 to October 22, 2010 sampling event). The 2010 floodplain soil sampling activities encompassed the floodplain area extending from Fort Edward, New York to Waterford, New York (i.e., from approximately river mile [RM] 195 to RM 156), including islands within the river. A Site Location Map depicting the project area is presented as Figure 1-1.

The 2010 soil sampling activities were completed in accordance with the Administrative Settlement Agreement and Order on Consent - U.S. EPA Region 2, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Docket No. 02-2008-2019, executed on September 8, 2008, modified on July 23, 2009, and further modified on August 17, 2010 (2008 Settlement Agreement; United States Environmental Protection Agency [EPA], 2008), as well as the EPA-approved Upper Hudson River Floodplains 2008 Field Sampling Plan (FSP: QEA and ARCADIS, 2008), Upper Hudson River Floodplains 2009 Field Sampling Plan Addendum (2009 FSP Addendum; Anchor QEA and ARCADIS, 2009), and Hudson River Floodplains 2010 Field Sampling Plan Addendum (2010 FSP Addendum; Anchor QEA and ARCADIS, 2010).

## 2. 2010 Floodplain Soil Sampling Activities, Laboratory Analyses and Results

This section describes the floodplain soil sampling and related activities that were completed in 2010, including:

- Property owner outreach and access agreements
- Regulatory permitting
- Field surveying, sample location inspections, and soil core collection
- Soil core processing and sample preparation
- Laboratory analyses

### 2.1 Property Owner Outreach and Access Agreements

On behalf of GE, Behan Communications, Inc. (Behan) attempted to obtain access from owners of all properties proposed for sampling in 2010 in order to conduct the field activities. Access was requested for GE, its authorized representatives, and for representatives of EPA, their contractors, and oversight officials. As discussed below, the access outreach efforts for the June 2010 sampling were managed separately from the access outreach efforts for the October 2010 sampling. As further discussed below, property access was granted by the owners of 32 properties for sampling in 2010.

#### 2.1.1 Properties Targeted for Additional Sampling to Support Planning and Design of Potential Short-Term Response Actions in 2010

Additional sampling was deemed necessary on eight properties where 2010 short-term response actions were planned. As signed property access agreements were previously received from the owners of these properties, additional written permission was deemed unnecessary. Verbal permission to collect additional soil samples was granted by the owners of these properties prior to collecting samples.

#### 2.1.2 Properties Targeted for Initial Sampling in 2010

As identified in the 2010 FSP Addendum, 32 properties were targeted for initial sampling in 2010. On August 12, 2010, Behan mailed letters to the owners of the 32 properties requesting permission to collect floodplain soil samples. If a response to the initial mailing was not received within two weeks, follow-up telephone calls were made to each property owner. Whenever possible, voice messages were left for those owners who did not answer their phones.

At the conclusion of GE's outreach efforts on October 8, 2010, EPA was notified of those property owners who could not be contacted or did not respond to GE. At its discretion, EPA attempted to obtain access and sampling permission by contacting certain property owners by telephone and/or by visiting them in person. As a result of GE's and EPA's combined outreach efforts, access to collect samples was granted for 22 of the 32 properties targeted for initial sampling in 2010, access was denied for 3 properties, and EPA and GE agreed to discontinue efforts to obtain access to 7 properties.

In addition, GE agreed to collect floodplain soil samples on two additional properties not identified in the 2010 FSP Addendum: one alternate property identified by EPA (i.e., not previously sampled), and one property that had been previously sampled by GE and EPA in 2009 (at the request of the property owner). Access was granted to collect soil samples on these two properties.

## **2.2 Access to NYSCC Property**

On GE's behalf, ARCADIS prepared a New York State Canal Corporation (NYSCC) Work Permit Application (Application No. TA-99072) to request temporary access to conduct soil sampling on property owned by NYSCC. The Work Permit Application was submitted to NYSCC on August 11, 2010, and an addendum to NYSCC Work Permit No. C2W100043 was issued by NYSCC on August 13, 2010, granting access to the property. A copy of the NYSCC Work Permit Addendum, including the completed application, is included in Appendix A.

## **2.3 Field Surveying, Sample Location Inspection, and Soil Core Collection**

The field surveying, sample location inspections, and soil sample collection activities were completed concurrently during a single site visit to each property. Regulatory oversight was provided by EPA for the duration of the field activities.

Prior to performing any intrusive sampling activities on a given property, Dig Safely New York was contacted to mark the location of any subsurface utilities in the areas targeted for sampling. In addition, as part of the property access outreach efforts described in Section 2.1, GE requested that property owners provide any information pertaining to any known private utilities on their respective properties. The information provided by the utility companies and property owners was considered during the field sampling activities, along with other factors (listed below), in determining the final soil sampling locations on each property.

Following utility clearance, the proposed sample locations were marked in the field using survey-grade global positioning system (GPS) equipment. In areas where tree cover or other factors precluded the use of GPS, conventional survey equipment was used to determine the sample locations. Survey flags were placed in the ground at each

proposed sample location, and each flag was marked with the designated sample ID for that location. Once the sampling locations were identified in the field by the survey personnel, representatives of GE and EPA reviewed the sampling locations to determine if adjustments were necessary based on one or more of the following criteria:

- Site topography/targeted sampling elevation
- The representativeness of the proposed sampling locations relative to the perceived location of human use areas
- The presence of subsurface utilities or other at-grade structures/objects
- Property-specific information provided by the property owner/user

Any sample locations that were adjusted from their original proposed locations were re-surveyed using either GPS or conventional survey equipment. Sample locations that were moved, added, or eliminated based on the field inspections were noted, and that information, including new sample location coordinates for moved or added sample locations, was subsequently uploaded into the Hudson River Floodplains Soils Sample Collection Database (Field Database). Table 2-1 presents a summary of the sampling locations that were added or eliminated as agreed upon by EPA and GE.

Once the soil sample locations were agreed upon by EPA and GE, a minimum of three attempts were made to manually collect soil samples at each location using a stainless steel Macro-Core® soil sampling device. The Macro-Core® sampling device consists of an outer steel barrel with an inner acetate liner. The Macro-Core® was manually advanced to a depth of 24 inches below ground surface (bgs) or until refusal (whichever came first) using a slide hammer. Once the target sampling depth was reached, or if refusal was encountered, the soil cores were extracted and measured to determine if sufficient sample recovery was obtained (i.e., a minimum of 75 percent of the penetration depth or as agreed upon with EPA). If sufficient recovery was obtained using the MacroCore®, the core tube was capped, labeled with the designated sample location ID and/or depth interval, and temporarily stored in a cooler (on ice) for subsequent transport to the soil core processing area by ARCADIS personnel. At sample locations where insufficient soil recovery was obtained using the Macro-Core® due to obstructions (e.g., roots, cobbles and rocks), and in locations not suitable for use of the Macro-Core® (e.g., coarse sand, gravel, etc.), a stainless steel hand auger was used to obtain the soil samples. Soil recovery for hand-augered soil cores was considered equivalent to the penetration depth. Soil samples collected using the stainless steel hand auger were segmented in the field, transferred into plastic bags, labeled with the designated sample location ID and/or depth interval, and temporarily stored in a cooler on ice pending transport to the soil core processing area.

Following completion of the sampling activities on each property, the resultant boreholes were backfilled with sand and/or topsoil to match the type of material present and the pre-sampling grade.

Non-disposable sampling equipment was decontaminated between sampling locations using potable water and a non-phosphate detergent. Decontamination water was containerized in 5-gallon buckets for management and disposal by GE.

**Table 2-1 Number of Sampling Locations Added or Eliminated**

River Reach	Number of Sample Locations Proposed	Number of Sample Locations Added	Number of Sample Locations Eliminated <sup>1</sup>	Total Number of Locations Sampled
<b>June 2010 Sampling Activities</b>				
8	1	0	0	1
7	3	2	0	5
6	0	0	0	0
5	8	0	1	7
4	0	0	0	0
3	0	0	0	0
2	0	0	0	0
1	4	0	0	4
<b>Total</b>	16	2	1	17
<b>October 2010 Sampling Activities</b>				
8	17	2	1	18
7	3	0	3	0
6	0	0	0	0
5	19	13	6	26
4	14	2	10	6
3	4	1	0	5
2	16	4	3	17
1	13	0	10	3
<b>Total</b>	86	22	33	75
<b>Grand Total</b>	102	24	34	92

Note:

1. Sample locations were eliminated either because access to collect samples was not granted by the property owner, or due to field conditions encountered at the time of the sampling, as agreed upon by GE and EPA.

## 2.4 Soil Sample Processing

Following collection, the soil cores were transferred to a designated sample processing area for characterization and sample processing. Samples collected in June 2010 were processed at GE's Fort Edward, New York facility. Samples collected in October 2010 were processed at the GE Hudson River Dredging Project Work Support Marina, located in Moreau, New York.

For samples collected using a Macro-Core® device, a portion of the liner was removed to allow for visual characterization of the soils. For samples collected using a hand auger, plastic bags containing the respective sample depth intervals were emptied into separate disposable aluminum sampling pans for visual characterization. Observations relative to the soil profile at each sampling location were recorded, and photographs were taken. Soil sample observations, including soil type, color, presence/absence of organic matter, and moisture content, were recorded in the UHR Field Database. Soil core descriptions and observations for the 2010 floodplain soil samples are presented in Appendix B.

Following visual characterization, soil cores collected using the Macro-Core® were segmented into 0- to 6-inch, 6- to 12-inch, and, as applicable, 12- to 24-inch sample depth intervals (or other interval greater than 12 inches based on actual sample recovery) using disposable sampling equipment, and the soil from each sample interval was placed in a dedicated aluminum pan. Debris and rocks greater than ½-inch in size were removed and the soil sample was blended thoroughly to obtain a homogeneous mixture for each interval. Samples were then containerized in clean, laboratory-supplied glassware. The sample containers were identified using an alpha-numeric designation system, as described in the 2010 FSP Addendum, to facilitate sample tracking and to differentiate the samples from previous floodplain samples.

The soil samples were packaged and shipped on ice under chain-of-custody (COC) to SGS Environmental Services, Inc. (SGS) in Wilmington, North Carolina for analysis for total PCBs and total organic carbon (TOC), as further described in Section 2.5. SGS is a New York State Department of Health Environmental Laboratory Accreditation Program (ELAP)-certified laboratory (Lab ID 11685).

Table 2-2 presents a summary of the proposed versus actual number of sample locations and soil samples collected (by depth interval) for each river reach.

**Table 2-2 Number of Sample Locations and Samples by Depth Interval by River Reach<sup>1</sup>**

River Reach	Proposed Number of Sample Locations	Proposed Number of Soil Samples			Actual Number of Sample Locations <sup>2</sup>	Actual Number of Soil Samples		
		0 – 6”	6 – 12”	12 – 24”		0 – 6”	6 – 12”	12 – 24”
<b>June 2010 Sampling Activities</b>								
8	1	1	1	1	1	1	1	1
7	3	3	3	3	5	5	5	5
6	0	0	0	0	0	0	0	0
5	8	8	8	8	7	7	7	7
4	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
1	4	4	4	4	4	4	4	4
<b>Total</b>	16	16	16	16	17	17	17	17
<b>October 2010 Sampling Activities</b>								
8	17	17	17	8	18	18	18	10
7	3	3	3	2	0	0	0	0
6	0	0	0	0	0	0	0	0
5	19	19	19	10	26	26	26	11
4	14	14	14	7	6	6	5	4
3	4	4	4	2	5	5	4	1
2	16	16	16	8	17	17	17	7
1	13	13	13	7	3	3	2	0
<b>Total</b>	86	86	86	44	75	75	72	33
<b>Grand Total<sup>(2)</sup></b>	102	102	102	60	92	92	89	50

Notes:

1. The summary statistics presented in Table 2-2 do not include QA/QC samples.
2. The difference between the total number of samples collected and the total number of samples proposed is attributed to samples being eliminated as a result of not obtaining property access, as described in Section 2.1, and locations eliminated in the field based on site conditions observed at the time of the sample collection (see Table 2-1 for a summary of the number of sample locations eliminated by River reach).

The field quality assurance/quality control (QA/QC) protocols described in the FSP (and subsequent addenda) were followed during the completion of the soil sampling activities. This included the collection of the appropriate number of QA/QC samples, including field duplicates to assess the reproducibility of the sampling methods, and rinse blanks to verify the effectiveness of decontamination procedures. To ensure that duplicate soil samples were not identifiable by the laboratory, the sample depth interval was replaced with “BD.” Rinse blanks were identified by replacing the sample digit number and depth indicator with “RS” followed by the date, Sample Crew ID, and sample number.

Table 2-3 presents a summary of the total number of soil samples and quality control samples collected by GE in 2010.

**Table 2-3 Number of Soil and QA/QC Samples by River Reach**

River Reach	Soil Samples	Duplicate Soil Samples	Rinse Blank	Total Samples
8	49	4	1	54
7	15	3	0	18
6	0	0	0	0
5	84	4	2	90
4	15	0	0	15
3	10	0	0	10
2	41	3	0	44
1	17	3	0	20
<b>Total</b>	231	17	3	251

Excess soil, used acetate liners, used plastic bags, disposable sampling equipment, personnel protective equipment, and decontamination wastes generated during the sample collection and processing activities were containerized in 55-gallon drums for subsequent management and disposal by GE.

**2.5 Laboratory Analyses and Results**

The 2010 floodplain soil samples were analyzed for total PCBs and TOC in accordance with EPA Method SW846 8082 and the Lloyd Kahn Method, respectively. The PCB and TOC data for the 2010 floodplain soil sampling activities are provided in Table 2-4. Figures 2-1 through 2-14 present the sampling locations and ranges of PCB concentrations for the floodplain soil samples collected in 2010, as well as for samples previously collected by GE, EPA, New York State Department of Environmental Conservation, and National Oceanic and Atmospheric Administration from 2000 to 2009.

As further discussed in Section 3, all 2010 PCB and TOC data were electronically verified, and approximately 10% of the data underwent full validation to ascertain the overall data quality and usability. The laboratory data sheets (Form 1 sheets) for the PCB and TOC analyses are included in the Data Usability Summary Reports (DUSRs) that have been prepared for each sample delivery group (SDG).

### 3. Data Verification and Validation

Following receipt of the analytical data from the laboratory, the PCB and TOC data underwent electronic data verification and data validation as described in the following subsections.

#### 3.1 Electronic Data Verification

Following receipt of the electronic data deliverables (EDDs) from the laboratory, electronic data verification was conducted to assess and evaluate batch quality control results presented in the EDDs. The term “verification” is used to designate the criteria-based checking of the laboratory-reported QC results against the limits defined in the FSP Addendum to qualify the data. The specific measures evaluated during verification and the associated criteria included:

- Holding times
- Accuracy (by evaluating laboratory control sample (LCS) recovery, and matrix spike/matrix spike duplicate (MS/MSD) recoveries)
- Precision (by evaluating laboratory duplicate results)
- Field duplicate sample precision
- Blank contamination (by evaluating laboratory method blanks and field-generated rinse blanks)
- Surrogate compound recoveries
- Percent solids for solid matrices

Automated verification summary logs were generated by Anchor QEA for each SDG transmitted by the laboratory in association with the 2010 floodplain sampling activities. A review of each of the verification summary logs was conducted by ARCADIS to confirm any qualifiers added to the associated data by the electronic database tool. In addition, data package completeness, the COCs and annotated sample result sheets were also evaluated during this review. The results of the review of the data summary logs are documented within the Data Verification Summary Reports (DVSRs) that are presented in Appendix C. Only instances where the verification tool incorrectly qualified a deviation or did not address a quality control deviation during the automated process have been identified and documented within the DVSRs.

**3.2 Data Validation**

In accordance with the 2010 FSP Addendum, approximately 10 percent of the 2010 PCB and TOC data underwent full data validation to evaluate data quality and usability. Specifically, of the 16 SDGs received from the laboratory in 2010, 3 SDGs were selected for validation. Data validation was conducted in accordance with EPA’s National Functional Guidance for Data Validation (EPA, 1999) and EPA Region II guidelines for Organic Data Validation, Standard Operating Procedure (SOP) HW-45 Revision 1, October 2006.

The results of the data validation process and overall data usability of the data are presented below. DVSRs and DUSRs associated with the PCB and TOC data are included in Appendix C and D, respectively. Any data qualifiers required based on the data validation process have been included in each individual DUSR.

The QA/QC parameters reviewed during the data validation process included:

- Holding times
- Blank contamination
- Instrument calibration
- Surrogate recovery
- MS/MSD duplicate and laboratory duplicate analysis
- Laboratory control sample analysis
- Field duplicates analysis
- Compound identification

The overall precision, accuracy, representativeness, comparability, and completeness parameters determined from the PCB and TOC data reviews were used as indicators of overall data quality. Data completeness as it relates to usability was calculated separately for the PCB and TOC analyses. The percent usability calculation also includes quality control samples (i.e., field duplicate and equipment blank data) collected to aid in the evaluation of data usability. Table 3-1 presents a summary of the data usability.

**Table 3-1 Data Usability Summary**

Parameter	Percent Usability
Total PCBs	100%
TOC	100%
All Analytes	100%

#### **4. References**

Anchor QEA, Inc., ARCADIS, 2009. Upper Hudson River Floodplains 2009 Field Sampling Plan Addendum, Final. Prepared for General Electric Company, Albany, New York (July 2009).

Anchor QEA, Inc., ARCADIS, 2010. Upper Hudson River Floodplains 2010 Field Sampling Plan Addendum, Final. Prepared for General Electric Company, Albany, New York (August 2010).

EPA, 2008. Upper Hudson River Floodplains Administrative Settlement Agreement and Order on Consent. USEPA Region 2, CERCLA Docket No. 02-2008-2019 (September 8, 2008, Modified July 23, 2009 and August 17, 2010).

QEA and ARCADIS, 2008. Upper Hudson River Field Sampling Plan, Final. Prepared for General Electric Company, Albany, New York (September 2008).

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**Table**

**Table 2-4  
Summary of 2010 Floodplain Soil PCB and TOC Data**

**Data Summary Report - 2010 Floodplain Sampling Activities  
Upper Hudson River Floodplains**

**General Electric Company - Albany, New York**

Sample ID	Sampling Date	Start Depth (in)	End Depth (in)	TPCB (mg/kg)	TOC (%)
GE10-R8-E-9495-01-04-000006	6/21/2010 15:56	0	6	0.22	1.03
GE10-R8-E-9495-01-04-006012	6/21/2010 15:58	6	12	1.45	1.95
GE10-R8-E-9495-01-04-012020	6/21/2010 15:59	12	20	0.05 [0.08]	2.68 [2.72]
GE10-R7-E-8687-08-08-000006	6/21/2010 16:02	0	6	ND(0.01) [ND(0.01)]	0.34 [0.35]
GE10-R7-E-8687-08-08-006012	6/21/2010 16:05	6	12	ND(0.01) [ND(0.01)]	0.23 [0.31]
GE10-R7-E-8687-08-08-012021	6/21/2010 16:07	12	21	ND(0.01)	0.13
GE10-R7-E-8687-08-09-000006	6/21/2010 16:11	0	6	0.03	0.22
GE10-R7-E-8687-08-09-006012	6/21/2010 16:14	6	12	ND(0.01) [ND(0.01)]	0.29 [0.67]
GE10-R7-E-8687-08-09-012021	6/21/2010 16:15	12	21	ND(0.01)	0.47
GE10-R5-E-7576-04-06-006012	6/22/2010 0:00	6	12	2.47	1.7
GE10-R5-W-6869-05-07-012018	6/22/2010 0:00	12	18	0.11	0.77
GE10-R7-W-8788-04-04-000006	6/22/2010 0:00	0	6	0.12	1.45
GE10-R5-E-7576-04-06-012023	6/22/2010 0:00	12	23	0.1	0.72
GE10-R7-W-8788-04-04-006012	6/22/2010 0:00	6	12	0.48	1.28
GE10-R7-W-8788-04-04-012018	6/22/2010 0:00	12	18	30.2	2
GE10-R7-W-8788-04-05-000006	6/22/2010 0:00	0	6	0.06	1.23
GE10-R7-W-8788-04-05-006012	6/22/2010 0:00	6	12	0.66	1.22
GE10-R5-W-6869-05-05-000006	6/22/2010 0:00	0	6	ND(0.01)	0.48
GE10-R5-W-7778-01-03-000006	6/22/2010 0:00	0	6	15.66	2.62
GE10-R7-W-8788-04-05-012020	6/22/2010 0:00	12	20	3.07	1.21
GE10-R5-W-6869-05-05-006012	6/22/2010 0:00	6	12	0.33	0.46
GE10-R5-W-7778-01-03-006012	6/22/2010 0:00	6	12	142.5	3.87
GE10-R7-W-8788-04-06-000006	6/22/2010 0:00	0	6	0.08	1.75
GE10-R5-W-6869-05-05-012022	6/22/2010 0:00	12	22	0.28	1.97
GE10-R5-W-7778-01-03-012019	6/22/2010 0:00	12	19	4.09	2.47
GE10-R7-W-8788-04-06-006012	6/22/2010 0:00	6	12	0.25	1.74
GE10-R5-W-6869-05-06-000006	6/22/2010 0:00	0	6	ND(0.01)	0.51
GE10-R5-W-7778-01-04-000006	6/22/2010 0:00	0	6	ND(0.01)	0.24
GE10-R7-W-8788-04-06-012024	6/22/2010 0:00	12	24	0.08	0.93
GE10-R5-E-7576-04-05-000006	6/22/2010 0:00	0	6	2.4	2.24
GE10-R5-W-6869-05-06-006012	6/22/2010 0:00	6	12	0.02	0.73
GE10-R5-W-7778-01-04-006012	6/22/2010 0:00	6	12	ND(0.01)	0.19
GE10-R5-E-7576-04-05-006012	6/22/2010 0:00	6	12	2.01	1.33
GE10-R5-W-6869-05-06-012021	6/22/2010 0:00	12	21	0.36	2.28
GE10-R5-W-7778-01-04-012023	6/22/2010 0:00	12	23	13.84	2.97
GE10-R5-E-7576-04-05-012019	6/22/2010 0:00	12	19	0.01	0.68
GE10-R5-W-6869-05-07-000006	6/22/2010 0:00	0	6	0.01	0.23
GE10-R5-E-7576-04-06-000006	6/22/2010 0:00	0	6	0.38	1.98
GE10-R5-W-6869-05-07-006012	6/22/2010 0:00	6	12	0.18	0.96
GE10-R1-E-5758-05-04-000006	6/23/2010 13:39	0	6	0.89	2.7
GE10-R1-E-5758-05-04-006012	6/23/2010 13:43	6	12	0.85	1.07
GE10-R1-E-5758-05-04-012018	6/23/2010 13:43	12	18	0.07	2.65
GE10-R1-E-5758-05-05-000006	6/23/2010 14:02	0	6	0.48 [0.65]	2.48 [2.49]
GE10-R1-E-5758-05-05-006012	6/23/2010 14:03	6	12	3.12	1.55
GE10-R1-E-5758-05-05-012020	6/23/2010 14:04	12	20	0.09 [0.11]	1.16 [1.29]

**Table 2-4  
Summary of 2010 Floodplain Soil PCB and TOC Data**

**Data Summary Report - 2010 Floodplain Sampling Activities  
Upper Hudson River Floodplains**

**General Electric Company - Albany, New York**

Sample ID	Sampling Date	Start Depth (in)	End Depth (in)	TPCB (mg/kg)	TOC (%)
GE10-R1-E-5758-07-04-000006	6/23/2010 14:25	0	6	0.34	0.54
GE10-R1-E-5758-07-04-006012	6/23/2010 14:29	6	12	0.87	1.61
GE10-R1-E-5758-07-04-012018	6/23/2010 14:29	12	18	0.19	0.39
GE10-R1-E-5758-07-05-000006	6/23/2010 14:38	0	6	ND(0.01)	1.95
GE10-R1-E-5758-07-05-006012	6/23/2010 14:38	6	12	0.13	0.64
GE10-R1-E-5758-07-05-012020	6/23/2010 14:38	12	20	ND(0.01)	1.76
GE10-R5-W-7778-01-01-000006	10/20/2010 10:35	0	6	0.84	2.13
GE10-R5-W-7778-01-01-006012	10/20/2010 10:35	6	12	0.23	0.73
GE10-R5-W-7778-01-02-000006	10/20/2010 10:47	0	6	ND(0.01)	1.37
GE10-R5-W-7778-01-02-006012	10/20/2010 10:47	6	12	ND(0.01)	0.47
GE10-R5-W-7778-01-02-012022	10/20/2010 10:47	12	22	ND(0.01)	0.25
GE10-R5-E-7778-01-03-000006	10/20/2010 10:56	0	6	0.83	1.5
GE10-R5-E-7778-01-03-006012	10/20/2010 10:56	6	12	0.66	1.03
GE10-R5-E-7778-01-03-012021	10/20/2010 10:56	12	21	0.04	0.77
GE10-R5-W-7778-02-01-000006	10/20/2010 11:03	0	6	0.04	0.86
GE10-R5-W-7778-02-01-006012	10/20/2010 11:03	6	12	ND(0.01) [ND(0.01)]	0.56 [0.33]
GE10-R5-W-7778-02-02-000006	10/20/2010 11:19	0	6	0.01	1.91
GE10-R5-W-7778-02-02-006012	10/20/2010 11:19	6	12	0.03	1.48
GE10-R5-W-7778-02-02-012024	10/20/2010 11:19	12	24	ND(0.01)	1.18
GE10-R5-W-7778-03-01-000006	10/20/2010 11:34	0	6	0.74	1.9
GE10-R5-W-7778-03-01-006012	10/20/2010 11:34	6	12	0.1	0.89
GE10-R5-W-7778-03-02-000006	10/20/2010 11:46	0	6	0.97	1.91
GE10-R5-W-7778-03-02-006012	10/20/2010 11:46	6	12	2.52	1.76
GE10-R8-E-9091-01-01-000006	10/20/2010 12:27	0	6	0.12	0.64
GE10-R8-E-9091-01-01-006012	10/20/2010 12:27	6	12	ND(0.01)	0.16
GE10-R8-E-9091-01-02-006012	10/20/2010 12:34	6	12	ND(0.01)	0.19
GE10-R8-E-9091-01-02-012018	10/20/2010 12:34	12	18	ND(0.01)	0.18
GE10-R8-E-9091-01-02-000006	10/20/2010 12:34	0	6	ND(0.01)	1.14
GE10-R8-E-9091-01-03-000006	10/20/2010 12:40	0	6	ND(0.01)	0.8
GE10-R8-E-9091-01-03-006012	10/20/2010 12:40	6	12	ND(0.01) [ND(0.01)]	0.14 [0.12]
GE10-R8-E-9091-01-04-000006	10/20/2010 12:48	0	6	1.89	4.21
GE10-R8-E-9091-01-04-006012	10/20/2010 12:48	6	12	3.09	2.22
GE10-R8-E-9091-01-04-012022	10/20/2010 12:48	12	22	0.12	0.21
GE10-R8-E-9091-02-01-000006	10/20/2010 13:07	0	6	2.3	0.44
GE10-R8-E-9091-02-01-006012	10/20/2010 13:07	6	12	0.76	0.61
GE10-R8-E-9091-02-02-000006	10/20/2010 13:13	0	6	4.25	3.53
GE10-R8-E-9091-02-02-006012	10/20/2010 13:13	6	12	11.24	1.66
GE10-R8-E-9091-02-02-012016	10/20/2010 13:13	12	16	1	1.15
GE10-R8-E-9091-03-01-006012	10/20/2010 13:23	6	12	4.07	0.77
GE10-R8-E-9091-03-01-000006	10/20/2010 13:23	0	6	1.05	1.2
GE10-R8-E-9091-03-02-000006	10/20/2010 13:37	0	6	0.26	1.22
GE10-R8-E-9091-03-02-006012	10/20/2010 13:37	6	12	0.12	0.55
GE10-R8-E-9091-03-02-012022	10/20/2010 13:37	12	22	ND(0.01)	0.34
GE10-R8-E-9495-01-01-000006	10/20/2010 13:44	0	6	10.05	2.41
GE10-R8-E-9495-01-01-006012	10/20/2010 13:44	6	12	80.5	4.23
GE10-R8-E-9495-01-01-012018	10/20/2010 13:44	12	18	0.76	3.29
GE10-R8-E-9495-01-02-000006	10/20/2010 13:52	0	6	13.12	4.13
GE10-R8-E-9495-01-02-006012	10/20/2010 13:52	6	12	8.49	3.43
GE10-R8-E-9495-01-03-000006	10/20/2010 13:58	0	6	10.68	6.14

**Table 2-4  
Summary of 2010 Floodplain Soil PCB and TOC Data**

**Data Summary Report - 2010 Floodplain Sampling Activities  
Upper Hudson River Floodplains**

**General Electric Company - Albany, New York**

Sample ID	Sampling Date	Start Depth (in)	End Depth (in)	TPCB (mg/kg)	TOC (%)
GE10-R8-E-9495-01-03-006012	10/20/2010 13:58	6	12	5.96	7.25
GE10-R8-E-9495-01-03-012018	10/20/2010 13:58	12	18	5.19	7
GE10-R8-I-9091-04-01-000006	10/20/2010 14:14	0	6	12.31	4.56
GE10-R8-I-9091-04-01-006012	10/20/2010 14:14	6	12	5.03	4.71
GE10-R8-I-9091-04-02-000006	10/20/2010 14:34	0	6	3.56	4.97
GE10-R8-I-9091-04-02-006012	10/20/2010 14:34	6	12	0.06 [0.07]	3.22 [3.04]
GE10-R8-I-9091-04-02-012020	10/20/2010 14:34	12	20	ND(0.02)	3.39
GE10-R8-I-9091-04-03-000006	10/20/2010 14:43	0	6	10.75	4.63
GE10-R8-I-9091-04-03-006012	10/20/2010 14:43	6	12	1.32	4.21
GE10-R8-I-9091-04-03-012022	10/20/2010 14:43	12	22	0.04	1.83
GE10-R8-I-9394-01-01-000006	10/20/2010 14:48	0	6	7.78	6.7
GE10-R8-I-9394-01-01-006012	10/20/2010 14:48	6	12	0.13	7.95
GE10-R8-I-9394-01-02-006012	10/20/2010 14:53	6	12	0.39	7.95
GE10-R8-I-9394-01-02-012019	10/20/2010 14:53	12	19	ND(0.01)	1.11
GE10-R8-I-9394-01-02-000006	10/20/2010 14:53	0	6	0.42	2.24
GE10-R8-I-9394-01-03-000006	10/20/2010 14:59	0	6	0.04	1.47
GE10-R8-I-9394-01-03-006012	10/20/2010 14:59	6	12	0.03	0.3
GE10-r8-i-9394-01-04-000006	10/20/2010 15:02	0	6	3.6	4.93
GE10-r8-i-9394-01-04-006012	10/20/2010 15:02	6	12	31.30 [65.90]	3.43 [1.74]
GE10-r8-i-9394-01-04-012021	10/20/2010 15:02	12	21	8.72	9.08
GE10-R2-W-6162-01-01-006010	10/21/2010 12:29	6	10	ND(0.01)	0.39
GE10-R2-W-6162-01-01-000006	10/21/2010 12:29	0	6	ND(0.01)	0.89
GE10-R2-W-6162-01-02-000006	10/21/2010 12:36	0	6	ND(0.01)	2.18
GE10-R2-W-6162-01-02-006012	10/21/2010 12:36	6	12	ND(0.01)	1.81
GE10-R2-W-6162-01-03-000006	10/21/2010 12:40	0	6	ND(0.01)	1.6
GE10-R2-W-6162-01-03-006007	10/21/2010 12:40	6	7	ND(0.01)	0.87
GE10-R2-W-6263-01-01-000006	10/21/2010 12:44	0	6	0.16	1.23
GE10-R2-W-6263-01-01-006012	10/21/2010 12:44	6	12	0.62	1.53
GE10-R2-W-6263-01-01-012018	10/21/2010 12:44	12	18	0.01	0.59
GE10-R2-W-6263-01-02-000006	10/21/2010 12:49	0	6	0.06	3.04
GE10-R2-W-6263-01-02-006012	10/21/2010 12:49	6	12	0.08 [0.12]	1.16 [1.17]
GE10-R2-W-6263-01-02-012018	10/21/2010 12:49	12	18	0.08	0.71
GE10-R2-W-6263-01-03-000006	10/21/2010 12:55	0	6	ND(0.01)	1.25
GE10-R2-W-6263-01-03-006012	10/21/2010 12:55	6	12	ND(0.01)	0.91
GE10-R2-W-6263-01-04-000006	10/21/2010 13:03	0	6	0.11	3.56
GE10-R2-W-6263-01-04-006012	10/21/2010 13:03	6	12	0.02	1.99
GE10-R2-W-6263-01-05-000006	10/21/2010 13:06	0	6	ND(0.01)	1.09
GE10-R2-W-6263-01-05-006012	10/21/2010 13:06	6	12	ND(0.01)	1.48
GE10-R4-W-6667-03-01-000006	10/21/2010 13:12	0	6	ND(0.01)	1.02
GE10-R4-W-6667-03-01-006012	10/21/2010 13:12	6	12	ND(0.01)	1.47
GE10-R4-W-6667-03-01-012022	10/21/2010 13:12	12	22	ND(0.01)	1
GE10-R5-E-7576-01-01-000006	10/21/2010 13:18	0	6	5.29	2.33
GE10-R5-E-7576-01-01-006012	10/21/2010 13:18	6	12	2.24 [3.08]	1.02 [1.27]
GE10-R5-E-7576-01-01-012020	10/21/2010 13:18	12	20	0.01	0.9
GE10-R5-E-7576-01-02-000006	10/21/2010 13:23	0	6	7.01	2.43
GE10-R5-E-7576-01-02-006012	10/21/2010 13:23	6	12	5.36	1.49
GE10-R5-E-7576-01-02-012020	10/21/2010 13:23	12	20	0.08	0.7

**Table 2-4  
Summary of 2010 Floodplain Soil PCB and TOC Data**

**Data Summary Report - 2010 Floodplain Sampling Activities  
Upper Hudson River Floodplains**

**General Electric Company - Albany, New York**

Sample ID	Sampling Date	Start Depth (in)	End Depth (in)	TPCB (mg/kg)	TOC (%)
Ge10-r5-e-7576-01-03-000006	10/21/2010 13:28	0	6	0.07	1.42
Ge10-r5-e-7576-01-03-006012	10/21/2010 13:28	6	12	ND(0.01)	0.63
Ge10-r5-e-7576-01-04-000006	10/21/2010 13:33	0	6	0.02	0.96
Ge10-r5-e-7576-01-04-006012	10/21/2010 13:33	6	12	ND(0.01)	0.68
Ge10-r5-e-7576-01-05-000006	10/21/2010 13:37	0	6	ND(0.01)	1.1
Ge10-r5-e-7576-01-05-006012	10/21/2010 13:37	6	12	ND(0.01)	0.42
GE10-R5-W-7172-01-01-000006	10/21/2010 13:44	0	6	2.05	3.25
GE10-R5-W-7172-01-01-006012	10/21/2010 13:44	6	12	0.07	1.79
GE10-R5-W-7172-01-02-000006	10/21/2010 13:50	0	6	ND(0.01)	0.33
GE10-R5-W-7172-01-02-006012	10/21/2010 13:50	6	12	0.02	0.34
GE10-R5-W-7172-01-02-012022	10/21/2010 13:50	12	22	ND(0.01)	0.32
GE10-R5-W-7172-01-03-000006	10/21/2010 13:55	0	6	0.06	2.36
GE10-R5-W-7172-01-03-006012	10/21/2010 13:55	6	12	ND(0.01)	0.89
GE10-R5-W-7172-01-03-012024	10/21/2010 13:55	12	24	ND(0.01)	1.07
ge10-r5-w-7172-01-04-000006	10/21/2010 13:58	0	6	0.28	1.45
ge10-r5-w-7172-01-04-006012	10/21/2010 13:58	6	12	0.1	1.32
GE10-R5-W-7475-01-01-006012	10/21/2010 14:06	6	12	0.27	1.55
GE10-R5-W-7475-01-01-012018	10/21/2010 14:06	12	18	0.02	0.7
GE10-R5-W-7475-01-01-000006	10/21/2010 14:06	0	6	1.03	2.08
GE10-R5-W-7475-01-02-000006	10/21/2010 15:37	0	6	ND(0.02)	2.08
GE10-R5-W-7475-01-02-006012	10/21/2010 15:37	6	12	ND(0.01) [ND(0.01)]	0.65 [0.79]
GE10-R5-W-7475-02-01-000006	10/21/2010 15:43	0	6	0.02	0.3
GE10-R5-W-7475-02-01-006012	10/21/2010 15:43	6	12	0.01	0.16
GE10-R5-W-7475-02-01-012018	10/21/2010 15:43	12	18	1.03	1.46
GE10-R5-W-7475-02-02-000006	10/21/2010 15:48	0	6	0.17	0.65
GE10-R5-W-7475-02-02-006012	10/21/2010 15:48	6	12	1.58	1.64
GE10-R5-W-7475-02-03-000006	10/21/2010 15:51	0	6	ND(0.01)	0.38
GE10-R5-W-7475-02-03-006012	10/21/2010 15:51	6	12	ND(0.01)	0.22
ge10-r5-w-7475-02-04-000006	10/21/2010 15:54	0	6	ND(0.01)	7.08
ge10-r5-w-7475-02-04-006012	10/21/2010 15:54	6	12	ND(0.01)	1.28
GE10-R2-W-6364-01-01-000006	10/21/2010 16:01	0	6	7.94	2.04
GE10-R2-W-6364-01-01-006012	10/21/2010 16:01	6	12	2.31 [2.41]	4.80 [3.91]
GE10-R2-W-6364-01-01-012018	10/21/2010 16:01	12	18	0.03	3.4
GE10-R2-W-6364-01-02-000006	10/21/2010 16:07	0	6	0.33	0.7
GE10-R2-W-6364-01-02-006012	10/21/2010 16:07	6	12	ND(0.01)	4.93
GE10-R2-W-6364-01-02-012018	10/21/2010 16:07	12	18	0.01	0.87
GE10-R2-W-6364-01-03-000006	10/21/2010 16:10	0	6	ND(0.01)	1.85
GE10-R2-W-6364-01-03-006012	10/21/2010 16:10	6	12	ND(0.01)	0.66
GE10-R2-W-6364-01-03-012018	10/21/2010 16:10	12	18	ND(0.01)	0.35
GE10-R1-E-5758-03-01-000006	10/22/2010 10:38	0	6	0.01 [ND(0.01)]	1.39 [1.52]
GE10-R1-E-5758-03-02-000006	10/22/2010 10:40	0	6	0.01	1.96
GE10-R1-E-5758-03-02-006012	10/22/2010 10:40	6	12	ND(0.01)	0.25
GE10-R1-E-5758-03-03-000006	10/22/2010 10:43	0	6	ND(0.01)	1.95
GE10-R1-E-5758-03-03-006012	10/22/2010 10:43	6	12	ND(0.01)	0.63
GE10-R2-E-6364-02-01-000006	10/22/2010 10:47	0	6	0.04	0.65
GE10-R2-E-6364-02-01-006011	10/22/2010 10:47	6	11	ND(0.01)	0.17
GE10-R2-E-6364-02-02-006012	10/22/2010 10:48	6	12	0.97	1.02
GE10-R2-E-6364-02-02-000006	10/22/2010 10:48	0	6	1.09	2.27

**Table 2-4  
Summary of 2010 Floodplain Soil PCB and TOC Data**

**Data Summary Report - 2010 Floodplain Sampling Activities  
Upper Hudson River Floodplains**

**General Electric Company - Albany, New York**

Sample ID	Sampling Date	Start Depth (in)	End Depth (in)	TPCB (mg/kg)	TOC (%)
GE10-R2-E-6364-02-03-000006	10/22/2010 10:51	0	6	ND(0.01)	1.54
GE10-R2-E-6364-02-03-006012	10/22/2010 10:51	6	12	ND(0.01)	1.15
GE10-R2-W-6061-02-01-000006	10/22/2010 10:53	0	6	ND(0.01)	1.25
GE10-R2-W-6061-02-01-006012	10/22/2010 10:53	6	12	ND(0.01)	1.33
GE10-R2-W-6061-02-01-012020	10/22/2010 10:53	12	20	ND(0.01)	0.4
GE10-R2-W-6061-02-02-000006	10/22/2010 10:58	0	6	ND(0.01)	0.97
GE10-R2-W-6061-02-02-006012	10/22/2010 10:58	6	12	ND(0.01)	0.31
GE10-R2-W-6061-02-03-000006	10/22/2010 11:02	0	6	ND(0.01)	0.73
GE10-R2-W-6061-02-03-006012	10/22/2010 11:02	6	12	ND(0.01)	0.14
GE10-R2-W-6061-02-03-012024	10/22/2010 11:02	12	24	ND(0.01) [ND(0.01)]	0.09 [0.08]
GE10-R3-E-6465-01-01-000006	10/22/2010 11:05	0	6	ND(0.01)	1.06
GE10-R3-E-6465-01-01-006009	10/22/2010 11:05	6	9	0.01	0.86
GE10-R3-E-6465-01-02-000006	10/22/2010 11:10	0	6	ND(0.02)	5.07
GE10-R3-E-6465-01-03-000006	10/22/2010 11:12	0	6	ND(0.01)	0.92
GE10-R3-E-6465-01-03-006012	10/22/2010 11:12	6	12	ND(0.01)	0.41
GE10-R3-E-6465-01-03-012020	10/22/2010 11:12	12	20	ND(0.01)	0.16
GE10-R3-E-6465-01-04-000006	10/22/2010 11:15	0	6	ND(0.01)	1.78
GE10-R3-E-6465-01-04-006012	10/22/2010 11:15	6	12	ND(0.01)	0.75
GE10-R3-E-6465-01-05-000006	10/22/2010 11:17	0	6	ND(0.01)	1.62
GE10-R3-E-6465-01-05-006012	10/22/2010 11:17	6	12	ND(0.01)	0.88
GE10-R4-I-6768-02-01-000006	10/22/2010 11:19	0	6	0.14	0.96
GE10-R4-I-6768-02-01-006010	10/22/2010 11:19	6	10	0.15	0.85
GE10-R4-I-6768-02-02-000004	10/22/2010 11:22	0	4	0.06	1.05
GE10-R4-I-6768-02-03-000006	10/22/2010 11:25	0	6	0.01	2.27
GE10-R4-I-6768-02-03-006012	10/22/2010 11:25	6	12	ND(0.01)	0.69
GE10-R4-I-6768-02-03-012019	10/22/2010 11:25	12	19	ND(0.01)	0.21
GE10-R4-I-6768-02-04-000006	10/22/2010 11:27	0	6	0.05	1.58
GE10-R4-I-6768-02-04-006012	10/22/2010 11:27	6	12	0.02	0.65
GE10-R4-I-6768-02-04-012018	10/22/2010 11:27	12	18	ND(0.01)	0.34
GE10-R4-I-6768-02-05-000006	10/22/2010 11:30	0	6	0.03	0.48
GE10-R4-I-6768-02-05-006012	10/22/2010 11:30	6	12	0.05	1.03
GE10-R4-I-6768-02-05-012018	10/22/2010 11:30	12	18	0.02	0.4
GE10-R5-E-6869-01-01-000006	10/22/2010 11:33	0	6	0.51	3.36
GE10-R5-E-6869-01-01-006012	10/22/2010 11:33	6	12	1.55 [3.52]	1.65 [1.39]
GE10-R5-E-6869-01-02-000006	10/22/2010 11:36	0	6	0.07	1.5
GE10-R5-E-6869-01-02-006012	10/22/2010 11:36	6	12	0.08	1.36
GE10-R5-E-6869-01-02-012022	10/22/2010 11:36	12	22	ND(0.01)	0.58
GE10-R5-E-6869-01-03-000006	10/22/2010 11:39	0	6	0.61	3.25
GE10-R5-E-6869-01-03-006012	10/22/2010 11:39	6	12	0.5	1.66
GE10-R5-E-6869-01-03-012018	10/22/2010 11:39	12	18	0.06	0.68
GE10-R5-E-6869-01-04-000006	10/22/2010 11:41	0	6	ND(0.01)	1.77
GE10-R5-E-6869-01-04-006012	10/22/2010 11:41	6	12	ND(0.01)	1.24