



SDMS: 287037

08-0064

Corporate Environmental Programs  
General Electric Company  
100 Woodlawn Avenue, Pittsfield, MA 01201

November 9, 2000

Mr. Dean Tagliaferro  
US Environmental Protection Agency  
One Congress Street, Suite 1100  
Boston, MA 02114-2023

Ms. Susan Steenstrup  
Department of Environmental Protection  
436 Dwight Street  
Springfield, MA 01103

**Re: Upper 1/2-Mile Reach of Housatonic River Removal Action  
Monthly Report – October 2000**

Dear Mr. Tagliaferro and Ms. Steenstrup:

In accordance with the approved Removal Action Work Plan - Upper 1/2 Mile Reach of Housatonic River, enclosed please find the October 2000 Monthly Report.

Please call with any questions.

Yours truly,

Andrew T. Silfer, P.E.  
Senior Technical Manager

cc: J.R. Bieke, Esquire, Shea & Gardner  
M.T. Carroll, GE  
T. Conway, EPA  
R. Goff, ACE  
W.A. Horne, GE  
H. Inglis, EPA  
J.H. Maxymillian, Maxymillian Technologies  
S. Messur, BBL  
K.C. Mitkevicius, USACE  
T. O'Brien, MA EOE  
B. Olson, EPA  
A.J. Thomas, Esquire, GE  
A. Weinberg, DEP

## **1.0 Overview:**

During October 2000, GE and its contractor Maxymillian Technologies Incorporated (MTI) continued work on the Upper ½ Mile Reach Removal Action. This work included transporting approximately 500 cubic yards (cy) of non-TSCA material from this project to the Hill 78 OPCA, completing Fall 2000 planting activities, completing the restoration in Cell F-2, and beginning the excavation of Cell G-2.

During work in Cell G-2, GE encountered and reported dense non-aqueous-phase liquid (DNAPL) in the center portion of the cell, as well as coal-tar-related oil in the downstream portion of Cell G-2 along the lower north bank area. These findings and associated activities are described further in Section 2.0 below. Subsequently, as also described in Section 2.0, hydraulic control was lost in Cell G-2 and the cell filled with water. The month of October ended with continuing efforts to regain hydraulic control in Cell G-2.

Weekly status meetings were held on September 4, 11, 18, and 25.

## **2.0 Chronological description of the tasks performed:**

Refer to the diagram (Exhibit A) referenced in Section 4.0 and attached to this report for an orientation of the sheetpile cells and their respective locations. In the month of October, GE Buildings 33-north, 33X and 65 were used as temporary storage facilities for TSCA and non-TSCA material.

Work during the month of October began with the transport of approximately 500 cy of non-TSCA material (bank soils and river sediments), which had been temporarily stored in Building 33-north, to the Hill 78 OPCA. After that material was removed, a new temporary stockpile area for non-TSCA material was constructed in Building 33-north. Additionally, GE removed, for off-site disposal, approximately 40 cy of DNAPL-impacted material excavated from Cell F-2, which had been stockpiled in Building 65, and it constructed a new temporary stockpile area for DNAPL-impacted material in Building 65.

Simultaneously with the hauling of the non-TSCA material to the Hill 78 OPCA, MTI completed all activities in Cell F-2, including construction of the southern half of the "W" rock weir. On October 4, 2000, EPA approved the restoration work in Cell F-2 and the dewatering efforts there were discontinued. Work efforts then shifted to Cell G-2 on the north side of the river. After the river was diverted to the south side and the upstream and downstream sheetpile walls were installed, Cell G-2 was dewatered. As a result of previously observed oil sheens on surface water in this area, all pumped water was sent to the 500,000 gallon storage tank prior to processing through GE's water treatment system.

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On October 12, 2000, while Cell G-2 was being dewatered, a thin rainbow-colored oil sheen was observed, along with small pockets of DNAPL, in the middle portion of the cell. On the same date, GE reported this observation to EPA, MDEP, and the National Response Center (NRC). The NRC issued tracking number 544977; MDEP did not issue a tracking number. A sample of the DNAPL on top of the river sediment was collected and found to contain PCBs at 339,000 ppm. With EPA approval, GE implemented a subsurface investigation consisting of eight borings to determine the limits of this PCB-containing DNAPL. The results indicated that this DNAPL observation was likely not associated with a significant source area.

EPA then reviewed and approved the survey layout for Cell G-2 and excavation began. This excavation included removal of DNAPL-impacted sediment from the center portion of Cell G-2.

On October 16, 2000, GE observed the presence of NAPL and corresponding surface water sheens in the downstream portion of Cell G-2. On the same date, GE reported this observation to EPA, MDEP, and NRC. The NRC issued tracking number 545345; MDEP did not issue a tracking number. A sample of NAPL-saturated sediment from the lower part of the bank in this area was collected and found to contain a number of polycyclic aromatic hydrocarbons (PAHs) characteristic of coal-tar-related material, with no detected PCBs. GE then began to implement a subsurface investigation program, which included a total of 13 soil borings (two of which were converted into piezometers) to determine the limits of the NAPL in the downstream bank area of Cell G-2. The results indicated that this NAPL observation could be associated with a source area.

On October 19, 2000, GE observed oil sheens on surface water in the upstream end of Cell G-3 and reported that observation to EPA, MDEP, and NRC. The NRC issued tracking number 545672; MDEP did not issue a tracking number. GE also deployed and has maintained a series of oil-absorbent booms to contain the sheens in this portion of Cell G-3, and it installed five additional soil borings along the north bank adjacent to Cell G-3.

Despite the observations of DNAPL in the middle part of Cell G-2 and NAPL at the bank in the downstream part of the cell, sediment removal activities were progressing well until hydraulic control of Cell G-2 was lost after a moderate rain event on October 19, 2000. A 3-foot rise in the river elevation may have increased the hydraulic gradient within the cell, which may have led to the significant boiling/piping of excess groundwater that caused the cell to rapidly fill with water.

On October 19, 2000, GE provided verbal notification to EPA and MDEP that the finding of coal-tar NAPL in Cell G-2 and the unrelated flooding of that cell could

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potentially constitute “force majeure” events under the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site.

GE discussed and evaluated the stability of the Cell G-2 excavation with MTI, EPA, and the U.S. Army Corps of Engineers (USACE). Attempts to stabilize the boiling/piping condition in the downstream part of Cell G-2 were initiated with EPA approval. This effort included driving some of the longer centerline sheetpiles deeper in the downstream end of cell, and plugging/filling with sand and gravel a thin, narrow, deep void that had been identified in the river bottom along the river (Cell F-2) side of the centerline sheetpile. As a result, on October 24, 2000, Cell G-2 was partially dewatered and hydraulic control was regained for a short period of time. However, a 12-foot-diameter crater/boil was observed in the downstream part of Cell G-2, indicating the unstable nature of the excavation in this cell. Major boils/piping continued, and Cell G-2 refilled with water on October 25.

GE continued to evaluate other potential options to regain hydraulic control in Cell G-2 and discussed those options with MTI, EPA, and USACE. On October 26, with the agreement of EPA and USACE, GE selected and began to implement the option of jetting and grouting the potential subsurface voids adjacent to the centerline sheetpile in the downstream part of Cell G-2.

The month of October ended with continuation of this jetting/grouting operation in an effort to regain hydraulic control in Cell G-2. The most recent information indicates the presence of significant additional voids along the centerline sheetpile upstream of where the largest (12-foot-diameter) boil was observed. Water control must be re-established before the extent of the observed DNAPL in the center of the cell and the NAPL in the downstream portion of the cell can be fully evaluated.

In the meantime, in late October, three borings were advanced into the till layer along the north bank adjacent to the downstream end of Cell G-2 to obtain depth-to-till information for potential use in designing a remedial approach to the NAPL in this area. In one of these borings, NAPL was detected at an elevation consistent with where NAPL had been observed in Cell G-2. Additional information is necessary before a remedial plan to address this NAPL can be fully evaluated, designed, and proposed to EPA. Additionally, excavation in the upstream and center portions of Cell G-2 must be completed to fully define the extent of the DNAPL observed in the center portion of the cell. These activities cannot be implemented until the cell is safely dewatered.

In addition, during October, Blasland, Bouck & Lee (on GE's behalf) continued the caged mussel study to evaluate the impacts of the construction/remediation work. This study involves the monitoring of mussels installed in August 2000 in cages at three locations in the Housatonic River (four cages per location) -- one upstream of the Newell Street bridge, one downstream of the Lyman Street bridge, and one upstream of the

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Dawes Avenue bridge. Three sampling events were performed during October – at 8-, 10-, and 12-week intervals from the date of initiation of the study (October 2-3, 16-17, and 30-31, respectively). During each event, a total of eight samples (four from each of two locations) were collected and submitted for analysis of PCBs and percent lipids (whole body composite samples minus the shell).

GE also continued to monitor coal-tar DNAPL from the 6-inch-diameter coal-tar DNAPL recovery well in former Cell C. In October, no measurable amounts of coal-tar DNAPL/water mixture were collected from that well. Monitoring of coal-tar DNAPL at this well will continue.

Finally, efforts to control invasive plant species on the restored banks continued in October with the initial step of trimming these plants prior to planting trees and shrubs. Based on discussions with EPA and the Massachusetts Executive Office of Environmental Affairs (EOEA) (on behalf of the natural resource Trustees), GE proposed topical use of herbicides as part of the invasive plant control plan, and on October 16, 2000, EPA and EOEA approved that proposal. GE is currently revising its invasive plant control plan to include use of herbicides and to provide more details on the application of herbicides, as requested by EPA and EOEA.

### **3.0 Number of samples collected:**

Water column monitoring for total suspended solids (TSS) was conducted on a daily basis. Water column PCB samples were collected once every 2 weeks on October 11 and 26, 2000. The TSS and PCB results received to date for the month of October are attached to this report (Table 1).

Table 2 presents a summary of analytical results, including PCB, VOC, and SVOC, data for the sample of DNAPL collected from the middle part of Cell G-2.

Table 3 presents a summary of analytical results, including PCB, VOC, and SVOC, data for the NAPL saturated sediment sample collected from the downstream lower bank area of Cell G-2.

Table 4 presents a summary of analytical results for PCBs from selected soil boring samples advanced through river sediment in the middle part of Cell G-2.

Tables 5 and 6 presents a summary of analytical results for VOC, SVOC, and PCBs from selected soil boring samples advanced in the bank areas of cells G-2 and G-3 respectively.

In the month of October, particulate air monitoring was conducted from October 2 to October 31. PCB air monitoring was conducted on October 17-18, 2000. The results

are attached to this report (Tables 7 and 8).

Table 9 includes analytical results for PCBs from the caged mussel study.

Table 10 includes the results from monthly monitoring of the coal-tar DNAPL recovery well.

Table 11 includes analytical results for VOC, SVOC, PCB and inorganic from a decayed drum containing a solid material, uncovered during the sediment excavation in Cell F-2.

Table 12 presents the results of Cell G-2 piezometer monitoring

#### **4.0 Diagrams associated with the tasks performed:**

A diagram labeled as Exhibit A shows the location of the Cells (A, B, C, D, E, F, and G) and is attached to this report for reference.

A summary chart (Exhibit B) has been developed to assist in tracking the analytical and physical testing requirements of the various sources of backfill (e.g., isolation material, soil back fill, riprap rock, etc.). Exhibit B includes the volume of backfill materials used, the analytical and physical testing frequencies required by the Work Plan, and the testing that has been performed to date.

#### **5.0 Identification of any reports received and prepared:**

During the month of October, meeting summaries from various weekly project status meetings were submitted to EPA, MDEP and EOE. Also, for work completed in September 2000, the monthly reports required by the Consent Decree and the Upper ½ Mile Reach Removal Action Work Plan were submitted on October 9 and October 6 respectively.

In addition, in October, GE submitted the following:

- Letter of October 4, 2000, requesting approval from EPA and EOE to apply herbicides as part of the invasive plant control plan. EPA and EOE provided approval for this application of herbicides on October 16, 2000.
- Letters of October 4 and 11, 2000, providing numerous material specifications (gradation analysis and analytical results) for materials used during the restoration activities.

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- Preliminary analytical results from selected samples from soil borings and DNAPL/NAPL samples (provided throughout October). A complete set of all analytical data will be submitted in early November in an attempt to advance the conceptual design of the NAPL remediation proposal.
- Letter of October 30, 2000, providing written follow-up information to GE's October 19 verbal notification that the observed coal-tar NAPL in the downstream part of Cell G-2 and the subsequent flooding of Cell G-2 could potentially constitute force majeure events under the CD.

**6.0 Photo documentation of activities performed:** See attached Figure 1

**7.0 Brief description of work to be performed in November 2000:**

Throughout the upcoming weeks in the month of November, the following activities are anticipated to take place:

- Complete the jetting/grouting operation, allow grout to cure, and attempt to de-water Cell G-2, so as to determine the effectiveness of the grouting operation.
- Continue to discuss and evaluate with EPA, USACE, and MTI additional options to stabilize the piping condition in the downstream part of Cell G-2. If needed, install additional sheetpile within Cell G-2 to regain hydraulic control.
- Determine the extent, if any, of remaining DNAPL observed in the middle portion of Cell G-2. Discuss appropriate remedial actions based on test results and visual observations.
- Complete designing a remedial plan for the NAPL area in the downstream/north bank area of Cell G-2. Obtain EPA approval of proposed remedial design, and implement the approved plan.
- Continue to clear trees and brush along the south bank near Cells F-3 and H-1.
- Upon EPA and EOEA approval of invasive plant control plan, implement that plan.
- Complete restoration work in Cell G-2 (after regaining hydraulic control), including the northern half of the "W" rock weir.
- Maintain temporary stockpiles of material in Buildings 33, 33X, and 65 (TSCA and non-TSCA).

- Continue monitoring coal-tar DNAPL recovery well.
- Continue caged mussel study.
- Conduct air and water column monitoring.

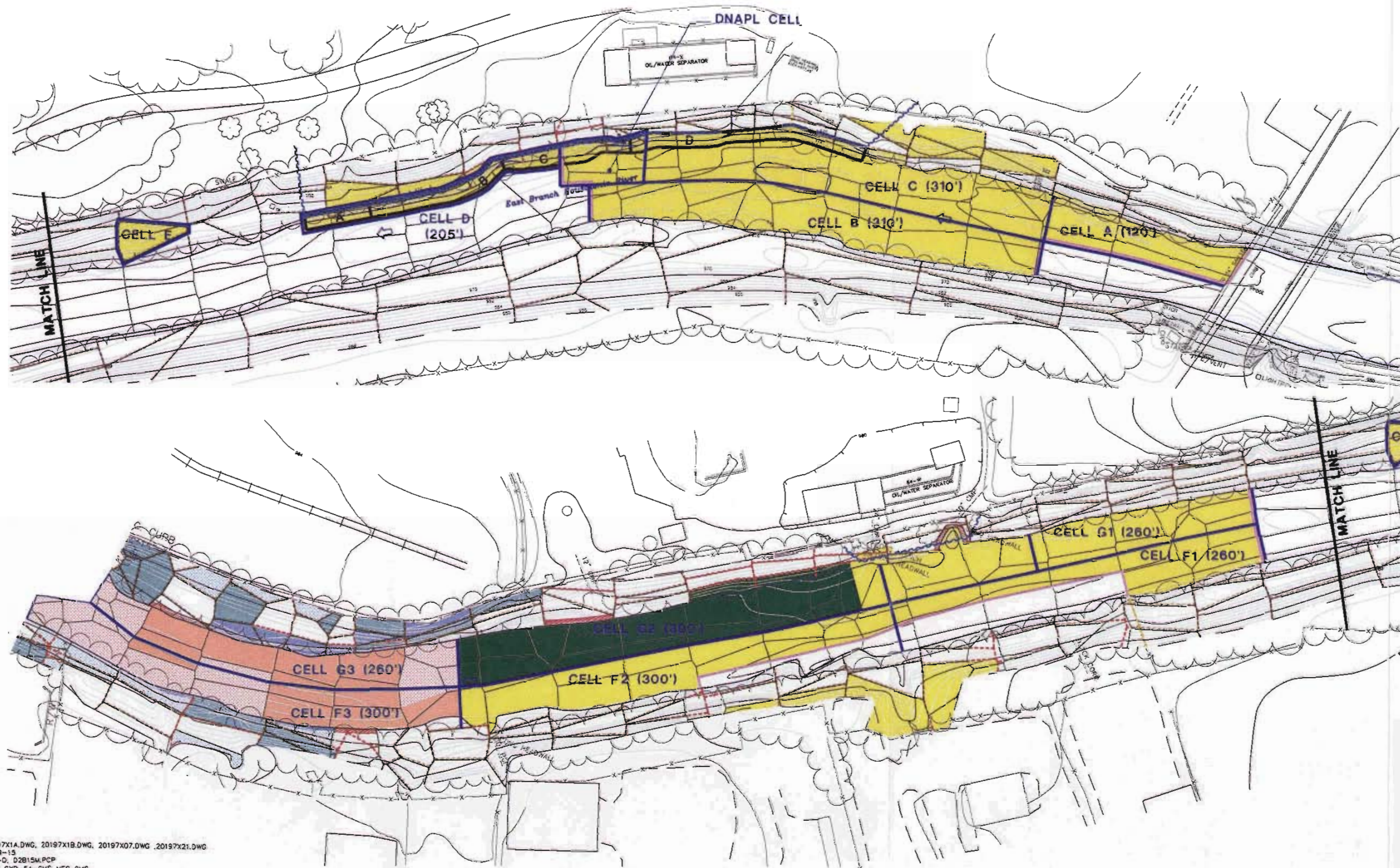
**8.0 Attachments to this report:**

- Table 1 - Water column monitoring TSS and PCB results.
- Table 2 - Analytical results for Cell G-2 PCB-DNAPL.
- Table 3 - Analytical results for Cell G-2 NAPL sediment sample.
- Table 4 - Analytical results for soil boring samples from the middle of Cell G-2.
- Table 5 - Analytical results for soil boring samples from the bank of Cell G-2
- Table 6 - Analytical results for soil boring samples from the bank of Cell G-3.
- Tables 7 and 8 – PCB and particulate air monitoring results.
- Table 9 - analytical results from the caged mussel study.
- Table 10 - monitoring results from the coal-tar DNAPL recovery well.
- Table 11 – analytical results from the drum containing a solid material.
- Table 12 – results of Cell G-2 piezometer monitoring
- Exhibit A - Diagram to show the locations of cells within the upstream part of the Upper ½ Mile Reach Removal Action.
- Exhibit B – Backfill quantity summary chart.
- Figure 1 - Photo documentation.



# Exhibit A - Upper 1/2 Mile Reach Removal Action

## Sediment and Bank Soil Removal Areas (Cells A-G)



**LEGEND:**

- 1.5 FEET SEDIMENT REMOVAL DEPTH
- 2 FEET SEDIMENT REMOVAL DEPTH
- 2.5 FEET SEDIMENT REMOVAL DEPTH
- 1 FOOT BANK SOIL REMOVAL DEPTH
- 2 FEET BANK SOIL REMOVAL DEPTH
- 3 FEET BANK SOIL REMOVAL DEPTH
- UPPER 1/2-MILE REMOVAL AREAS COMPLETED
- UPPER 1/2-MILE REMOVAL AREAS IN PROGRESS
- AREA SUBJECT TO BANK STABILIZATION ACTIVITIES
- EXISTING CONTAINMENT BARRIER LOCATION
- 0'-1' BANK SOIL POLYGON
- 1'-3' BANK SOIL POLYGON
- TOP OF BANK
- BANK SOIL AREA BOUNDARY
- CAP AND ARMOR TIE-IN BUFFER
- REMOVAL CELL

**A B C** ADDITIONAL EXCAVATION TO OCCUR IN CONJUNCTION WITH SOURCE CONTROL ACTIVITIES

- NOTES:**
1. MAPPING IS BEST AVAILABLE INFORMATION AS OF 12/10/98 BASED ON MAPPING PROVIDED BY LOCKWOOD MAPPING, INC. PREPARED FROM 1990 AERIAL PHOTOGRAPHY; DATA PROVIDED BY GENERAL ELECTRIC; AND BLASLAND AND BOUCK, P.C. CONSTRUCTION PLANS, RIVERBANK AND RIVER BED TOPOGRAPHIC INFORMATION PROVIDED BBL FROM OCTOBER 12-23, 1998 FIELD SURVEY.
  2. COORDINATE GRID BASED ON 1927 STATE PLAN COORDINATES.
  3. ELEVATION DATUM REFERENCED TO NGVD 1929.
  4. CELL LOCATIONS AND DISTANCES ARE APPROXIMATE.



**DRAFT**

X 20197X1A.DWG, 20197X1B.DWG, 20197X07.DWG, 20197X21.DWG  
 LMAN: 9-15  
 P: 15M-D, D2B15M.PCP  
 11/1/00 SYR-54-GMS NES GMS  
 20197030/B15U.DWG



TABLE 1

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

OCTOBER 2000

UPPER 1/2 MILE REACH REMOVAL ACTION  
HOUSATONIC RIVER PCB/TSS/TURBIDITY MONITORING DURING CONSTRUCTION

Location	Date	Water Depth (ft)	Water Temp. (°C)	Flow (cfs)	Turbidity (ntu) <sup>12</sup>			Sample ID	Total PCB Concentration <sup>13</sup> (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Downstream of Lyman St. Bridge	10/2/2000	1.8	10	---	3	2	2	---	---	---	
	10/2/2000	2.6	10	---	3	1	2	---	---	---	
Upstream of Newell St. Bridge	10/3/2000	1.8	11	---	3	2	2	---	---	---	
Downstream of Lyman St. Bridge	10/3/2000	2.6	11	---	5	2	3	---	---	---	
Upstream of Newell St. Bridge	10/4/2000	1.9	12	---	4	2	2	---	---	---	
Downstream of Lyman St. Bridge	10/4/2000	2.7	12	---	5	2	3	---	---	---	
Upstream of Newell St. Bridge	10/5/2000	1.9	12	57	4	3	3	---	---	---	
Downstream of Lyman St. Bridge	10/5/2000	2.7	12	64	4	3	3	---	---	---	
Upstream of Newell St. Bridge	10/6/2000	3.1	11	---	40	12	32	---	---	---	
Downstream of Lyman St. Bridge	10/6/2000	3.7	11	---	40	16	35	---	---	---	
Upstream of Newell St. Bridge	10/10/2000	1.9	13	---	3	2	3	---	---	---	
Downstream of Lyman St. Bridge	10/10/2000	2.6	13	---	3	2	2	---	---	---	
Upstream of Newell St. Bridge	10/11/2000	1.9	13	---	3	2	3	HR-10-11-00-U1	ND(0.0278)	ND(0.0258)	
Downstream of Lyman St. Bridge	10/11/2000	2.6	14	---	5	2	3	HR-10-11-00-D1	0.0557	ND(0.0255)	
Upstream of Newell St. Bridge	10/12/2000	1.9	14	---	3	2	2	---	---	---	
Downstream of Lyman St. Bridge	10/12/2000	2.6	14	---	3	2	3	---	---	---	
Upstream of Newell St. Bridge	10/13/2000	1.9	14	---	3	2	2	---	---	---	
Downstream of Lyman St. Bridge	10/13/2000	2.6	14	---	3	2	3	---	---	---	
Upstream of Newell St. Bridge	10/16/2000	1.6	11	---	3	2	2	---	---	---	
Downstream of Lyman St. Bridge	10/16/2000	2.7	11	---	4	2	2	---	---	---	
Upstream of Newell St. Bridge	10/17/2000	1.8	11	---	3	2	3	---	---	---	
Downstream of Lyman St. Bridge	10/17/2000	2.9	11	---	3	2	3	---	---	---	
Upstream of Newell St. Bridge	10/18/2000	2.8	12	---	5	2	6	---	---	---	
Downstream of Lyman St. Bridge	10/18/2000	3.8	12	---	7	3	7	---	---	---	
Upstream of Newell St. Bridge	10/19/2000	2.5	11	---	5	3	5	---	---	---	
Downstream of Lyman St. Bridge	10/19/2000	3.4	11	---	6	3	6	---	---	---	
Upstream of Newell St. Bridge	10/20/2000	2.3	11	---	---	---	---	---	---	---	
Downstream of Lyman St. Bridge	10/20/2000	3.3	11	---	---	---	---	---	---	---	

TABLE 1

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

OCTOBER 2000

UPPER 1/2 MILE REACH REMOVAL ACTION  
HOUSATONIC RIVER PCB/TSS/TURBIDITY MONITORING DURING CONSTRUCTION

Location	Date	Water Depth (ft)	Water Temp. (°C)	Flow (cfs)	Turbidity (ntu) <sup>12</sup>			Sample ID	Total PCB Concentration <sup>13</sup> (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	10/23/2000	1.9	7	---	4	2	2	---	---	---	---
Downstream of Lyman St. Bridge	10/23/2000	3.1	7	---	4	2	3	---	---	---	---
Upstream of Newell St. Bridge	10/24/2000	---	---	---	---	---	---	---	---	---	---
Downstream of Lyman St. Bridge	10/24/2000	---	---	---	---	---	---	---	---	---	---
Upstream of Newell St. Bridge	10/25/2000	1.9	10	---	3	2	3	---	---	---	---
Downstream of Lyman St. Bridge	10/25/2000	2.9	10	---	3	2	2	---	---	---	---
Upstream of Newell St. Bridge	10/26/2000	2.0	10	---	4	2	2	HR-10-26-00-U1	NR	NR	NR
Downstream of Lyman St. Bridge	10/26/2000	3.1	10	---	3	2	3	HR-10-26-00-D1	NR	NR	NR
Upstream of Newell St. Bridge	10/27/2000	1.9	10	---	3	2	2	---	---	---	---
Downstream of Lyman St. Bridge	10/27/2000	3.0	10	---	3	2	2	---	---	---	---
Upstream of Newell St. Bridge	10/30/2000	1.8	8	---	12	2	2	---	---	---	---
Downstream of Lyman St. Bridge	10/30/2000	2.9	8	---	5	2	3	---	---	---	---
Upstream of Newell St. Bridge	10/31/2000	1.6	8	---	---	---	---	---	---	---	---
Downstream of Lyman St. Bridge	10/31/2000	2.7	8	---	4	1	2	---	---	---	---

Notes:

1. PCB and TSS samples were collected by Blasland, Bouck & Lee, Inc. and analyzed by Northeast Analytical, Inc..
2. Water depth taken at sampling point (i.e. middle of river).
3. ft - Feet
4. °C - degrees Celsius
5. cfs - cubic feet per second
6. ntu - nephelometric turbidity units
7. --- - No data obtained
8. ND(0.25) - Compound was analyzed for but not detected at the quantitation limit indicated in parentheses.
9. NR - Not yet reported
10. ug/l - micrograms per liter
11. mg/l - milligrams per liter
12. Turbidity Action Level = Turbidity downstream ≤ Turbidity upstream + 50 ntu
13. PCB Action Level = PCBs downstream ≤ PCBs upstream + 5 ug/l

TABLE 2

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
CELL G-2 DNAPL INVESTIGATION  
DNAPL SAMPLE DATA RECEIVED DURING OCTOBER 2000

(Results are presented in parts per million, ppm)

Parameter	Sample ID: Date Collected:	G2-OIL-1 10/12/00
<b>PCBs</b>		
Aroclor -1260		339000
Total PCBs		339000
<b>Volatile Organics</b>		
Chlorobenzene		48.7
<b>Semivolatile Organics</b>		
1,2,4-Trichlorobenzene		83400
1,4-Dichlorobenzene		44000

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs, volatiles, and semivolatiles.
2. Only detected constituents are summarized.

TABLE 3

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
CELL G-2 SURFACE SEDIMENT INVESTIGATION  
SEDIMENT SAMPLE DATA RECEIVED DURING OCTOBER 2000

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

Parameter	Sample ID: Date Collected:	HR-G2-SS-1 10/16/00
<b>PCBs</b>		
None Detected		--
<b>Volatile Organics</b>		
None Detected		--
<b>Semivolatile Organics</b>		
1,3-Dichlorobenzene		17.4
1,4-Dichlorobenzene		38.6
2,4-Dinitrotoluene		21.2
Acenaphthene		2200
Acenaphthylene		129
Anthracene		2190
Benzo(a)anthracene		1560
Benzo(a)pyrene		1290
Benzo(b)fluoranthene		1010
Benzo(g,h,i)perylene		441
Benzo(k)fluoranthene		150
Chrysene		927
Dibenzo(a,h)anthracene		56.9
Dibenzofuran		26.6
Fluoranthene		2900
Fluorene		1560
Indeno(1,2,3-cd)pyrene		189
Naphthalene		15.1
Phenanthrene		7680
Pyrene		4490

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs, volatiles, and semivolatiles.
2. Only detected constituents are summarized.

PRELIMINARY ANALYTICAL DATA  
SUBJECT TO VERIFICATION

TABLE 4

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
CELL G-2 SEDIMENT INVESTIGATION  
SEDIMENT SAMPLE DATA RECEIVED DURING OCTOBER 2000

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

Sample ID	Date Collected	Aroclor 1016, 1221, 1232, 1242, 1248, & 1254	Aroclor 1260	Total PCBs
HR-G2-SB-10	10/13/2000	ND(0.217) [ND(0.222)]	3.52 AGB [2.76 AGB]	3.52 AGB [2.76 AGB]
HR-G2-SB-11	10/13/2000	ND(116)	3100 AGB	3100 AGB
HR-G2-SB-12	10/13/2000	ND(57.4)	1630 AGB	1630 AGB
HR-G2-SB-13	10/13/2000	ND(107)	2290 AGB	2290 AGB

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The value in parentheses is the associated detection limit.
3. AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
4. B - Analyte was also detected in the associated method blank.
5. Only detected constituents are summarized.

TABLE 5

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
CELL G-2 REMOVAL ACTION  
SOIL BORING SAMPLE DATA RECEIVED DURING OCTOBER 2000

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

Parameter	Sample ID: Sample Depth(Feet): Date Collected:	HR-G2-SB-15 8-9 10/18/00	HR-G2-SB-16 6-8 10/18/00	HR-G2-SB-17 4-6 10/18/00	HR-G2-SB-18 8-10 10/19/00
<b>PCBs</b>					
Aroclor 1242		ND(0.0595)	5.07 PD	27.0 PD	ND(0.051)
Aroclor 1254		ND(0.0595)	65.6 AF	220 AF	ND(0.051)
Aroclor 1260		0.0988 AG	99.0 AG	307 AG	ND(0.051)
Total PCBs		0.0988	170	554	ND(0.051)
<b>Volatile Organics</b>					
Chlorobenzene		ND(1.25)	12.8	ND(1.83)	ND(0.0526)
Ethylbenzene		ND(1.25)	ND(1.58)	2.35	ND(0.0526)
<b>Semivolatile Organics</b>					
1,4-Dichlorobenzene		ND(0.426)	2.27	ND(6.25)	ND(0.356)
2-Methylnaphthalene		ND(0.426)	1.41	18.6	ND(0.356)
Acenaphthene		0.455	2.90	36.7	ND(0.356)
Anthracene		ND(0.426)	1.31	31.0	ND(0.356)
Benzo(a)anthracene		ND(0.426)	0.784	17.4	ND(0.356)
Benzo(a)pyrene		ND(0.426)	0.556	15.6	ND(0.356)
Benzo(b)fluoranthene		ND(0.426)	0.741	11.5	ND(0.356)
Carbazole		ND(0.426)	0.577	ND(6.25)	ND(0.356)
Chrysene		ND(0.426)	0.707	12.3	ND(0.356)
Fluoranthene		ND(0.426)	2.08	29.6	ND(0.356)
Fluorene		ND(0.426)	1.30	19.3	ND(0.356)
Naphthalene		ND(0.426)	1.28	29.4	ND(0.356)
Phenanthrene		ND(0.426)	4.00	96.3	ND(0.356)
Pyrene		ND(0.426)	2.67	77.4	ND(0.356)

- Notes:
1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs, volatiles, and semivolatiles.
  2. Only constituents detected in at least one sample are summarized.
  3. AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
  4. AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
  5. PD - Aroclor 1242 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1242 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
  6. ND - Analyte was not detected. The value in parentheses is the associated detection limit.

TABLE 6

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
CELL G-3 REMOVAL ACTION  
SOIL BORING SAMPLE DATA RECEIVED DURING OCTOBER 2000

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

Sample ID:	HR-G3-SB-3	HR-G3-SB-4	HR-G3-SB-5
Sample Depth(Feet):	5.5 - 6	5.5 - 6	4 - 5.5
Parameter Date Collected:	10/20/00	10/20/00	10/20/00
<b>Volatile Organics</b>			
Chlorobenzene	0.11	0.017	0.060 [0.084]
<b>PCBs</b>			
Aroclor-1260	7.3	6.2	11 [10]
Total PCBs	7.3	6.2	11 [10]
<b>Semivolatile Organics</b>			
2-Methylnaphthalene	0.76	ND(0.63)	ND(0.58) [ND(0.58)]
Acenaphthene	4.4	ND(0.63)	ND(0.58) [ND(0.58)]
Anthracene	3.9	ND(0.63)	ND(0.58) [ND(0.58)]
Benzo(a)anthracene	2.3	ND(0.63)	ND(0.58) [ND(0.58)]
Benzo(a)pyrene	1.8	ND(0.63)	ND(0.58) [ND(0.58)]
Benzo(b)fluoranthene	1.7	ND(0.63)	ND(0.58) [ND(0.58)]
Benzo(g,h,i)perylene	0.60	ND(0.63)	ND(0.58) [ND(0.58)]
Benzo(k)fluoranthene	0.81	ND(0.63)	ND(0.58) [ND(0.58)]
Chrysene	2.4	ND(0.63)	ND(0.58) [ND(0.58)]
Dibenzofuran	0.56	ND(0.63)	ND(0.58) [ND(0.58)]
Fluoranthene	4.1	ND(0.63)	ND(0.58) [ND(0.58)]
Fluorene	3.1	ND(0.63)	ND(0.58) [ND(0.58)]
Indeno(1,2,3-cd)pyrene	0.73	ND(0.63)	ND(0.58) [ND(0.58)]
Naphthalene	0.80	ND(0.63)	ND(0.58) [ND(0.58)]
Phenanthrene	9.4	ND(0.63)	ND(0.58) [ND(0.58)]
Pyrene	6.3	ND(0.63)	ND(0.58) [ND(0.58)]

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to CT&E Environmental Services, Inc. for analysis of PCBs, volatiles, and semivolatiles.
2. Only constituents detected in at least one sample are summarized.
3. ND - Analyte was not detected. The value in parentheses is the associated detection limit.
4. Shading indicates that value exceeds the MCP-RCS-1 Reporatable Concentration.
5. Duplicate results are presented in brackets.



TABLE 7

**GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS**

**HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING OCTOBER 2000**

Date	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	BM-1 (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
10/2/2000	AM-4 (south side of river)	0.022	0.015	9:15	Variable
10/3/2000	AM-4 (south side of river)	0.026	0.030	7:30 <sup>1</sup>	WNW
10/4/2000	AM-4 (south side of river)	0.012	0.010	5:15 <sup>2</sup>	Variable
10/05/00 <sup>3</sup>	AM-4 (south side of river)	NA	NA	NA	NA
10/06/00 <sup>3</sup>	AM-4 (south side of river)	NA	NA	NA	NA
10/09/00 <sup>4</sup>	AM-4 (south side of river)	NA	NA	NA	NA
10/10/2000	AM-4 (south side of river)	0.005	0.006	10:00	W
10/11/2000	AM-4 (south side of river)	0.010	0.007	10:15	W
10/12/2000	AM-4 (south side of river)	0.016	0.015	9:15	W
10/13/2000	AM-4 (south side of river)	0.013	0.017	10:15	W
10/16/00 <sup>3</sup>	AM-4 (south side of river)	NA	NA	NA	NA
10/17/2000	AM-4 (south side of river)	0.008	0.005	9:00	E, ESE
10/18/00 <sup>3</sup>	AM-4 (south side of river)	NA	NA	NA	NA
10/19/2000	AM-4 (south side of river)	0.009	0.016	10:15	WNW
10/20/2000	AM-4 (south side of river)	0.008	0.009	9:00	WSW, SSW
10/23/2000	AM-4 (south side of river)	0.010	0.008	9:30	SW, SSW
10/24/2000	AM-4 (south side of river)	0.011	0.010	10:00	W, WSW
10/25/2000	AM-4 (south side of river)	0.024	0.032	10:45	Variable
10/26/2000	AM-4 (south side of river)	0.022	0.030	9:15	S, SSW
10/27/2000	AM-4 (south side of river)	0.022	0.021	9:30	Variable
10/30/2000	AM-4 (south side of river)	0.068	0.004	9:45	NNW
10/31/2000	AM-4 (south side of river)	0.005	0.004	9:15	NNW
Notification Level		0.120			

Notes:

NA - Not Available

BM-1: Background monitoring location west of Bldg. 42.

AM-4: Air monitoring location behind the former F.W. Webb building on Newell Street.

<sup>1</sup> Sampling period was shortened due to instrument failure (dead battery).<sup>2</sup> Sampling period was shortened due to precipitation/threat of precipitation.<sup>3</sup> Sampling was not performed due to precipitation/threat of precipitation.<sup>4</sup> Sampling was not performed due to lack of site activity on the Columbus Day holiday.

TABLE 8

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
AMBIENT AIR PCB DATA RECEIVED DURING OCTOBER 2000

Date	BM-1 ug/m3	AM-3 ug/m3	AM-3 co-located ug/m3	AM-4 ug/m3	AM-5 ug/m3	AM-6 ug/m3
10/18 - 10/19/00	0.0062	0.0115	0.011	0.0067	0.0087	0.0055
Notification Level	0.05	0.05	0.05	0.05	0.05	0.05

Notes:

BM-1: Background monitoring location west of Bldg. 42.

AM-3: Air monitoring location north bank, north of Bldg. 64W. This location is also a co-located site.

AM-4: Air monitoring location south bank, at 261 Newell St. behind building formerly known as F.W. Webb.

AM-5: Air monitoring location north bank, east of Bldg. 63.

AM-6: Air monitoring location south bank, north edge of GE Newell St. parking area.

TABLE 9

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
HOUSATONIC RIVER CAGED MUSSEL STUDY  
PCB AND % LIPID DATA RECEIVED DURING OCTOBER 2000

(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, 1232, & 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs	% Lipids
LOC1-NB-I	Upstream of Newell St. Bridge	9/5/2000	ND(0.0513)	ND(0.0513)	0.182 AF	0.0772 AG	0.259	0.500
LOC1-NB-J	Upstream of Newell St. Bridge	9/5/2000	ND(0.0512)	ND(0.0512)	0.233 AF	0.122 AG	0.355	0.579
LOC1-SB-I	Upstream of Newell St. Bridge	9/5/2000	ND(0.0529)	ND(0.0529)	0.210 AF	0.114 AG	0.324	0.563
LOC1-SB-J	Upstream of Newell St. Bridge	9/5/2000	ND(0.0505)	ND(0.0505)	0.180 AF	0.0761 AG	0.256	0.316
LOC2-NB-I	Downstream of Lyman St. Bridge	9/5/2000	ND(0.0513)	0.121 PE	0.426 AF	0.615 AG	1.16	0.382
LOC2-NB-J	Downstream of Lyman St. Bridge	9/5/2000	ND(0.0533)	0.222 PE	0.621 AF	0.832 AG	1.68	0.568
LOC2-SB-I	Downstream of Lyman St. Bridge	9/5/2000	ND(0.0542)	0.140 PE	0.522 AF	0.748 AG	1.41	0.442
LOC2-SB-J	Downstream of Lyman St. Bridge	9/5/2000	ND(0.0529)	0.0870 PE	0.288 AF	0.403 AG	0.778	0.254
LOC3-NB-I	Upstream of Dawes Ave. Bridge	9/5/2000	ND(0.0514)	0.182 PE	0.589 AF	1.07 AG	1.84	0.367
LOC3-NB-J	Upstream of Dawes Ave. Bridge	9/5/2000	ND(0.0532)	0.356 PE	0.664 AF	1.30 AG	2.32	0.354
LOC3-SB-I	Upstream of Dawes Ave. Bridge	9/5/2000	ND(0.0524)	0.189 PE	0.660 AF	1.34 AG	2.19	0.440
LOC3-SB-J	Upstream of Dawes Ave. Bridge	9/5/2000	ND(0.0518)	0.225 PE	0.609 AF	1.10 AG	1.93	0.468
LOC1-NB-K	Upstream of Newell St. Bridge	9/18/2000	ND(0.0549)	ND(0.0549)	0.157 AF	0.0775 AG	0.235	0.519
LOC1-NB-L	Upstream of Newell St. Bridge	9/18/2000	ND(0.0532)	ND(0.0532)	0.127 AF	0.0758 AG	0.203	0.444
LOC1-SB-K	Upstream of Newell St. Bridge	9/18/2000	ND(0.0541)	ND(0.0541)	0.124 AF	0.0686 AG	0.193	0.443
LOC1-SB-L	Upstream of Newell St. Bridge	9/18/2000	ND(0.0548)	ND(0.0548)	0.132 AF	0.0823 AG	0.214	0.501
LOC2-NB-K	Downstream of Lyman St. Bridge	9/18/2000	ND(0.0514)	0.285 PE	0.661 AF	1.34 AG	2.29	0.581
LOC2-NB-L	Downstream of Lyman St. Bridge	9/18/2000	ND(0.0516)	0.285 PE	0.504 AF	1.16 AG	1.95	0.531
LOC2-SB-K	Downstream of Lyman St. Bridge	9/18/2000	ND(0.0532)	0.216 PE	0.477 AF	0.960 AG	1.65	0.513
LOC2-SB-L	Downstream of Lyman St. Bridge	9/18/2000	ND(0.0530)	0.211 PE	0.498 AF	1.06 AG	1.77	0.485
LOC3-NB-K	Upstream of Dawes Ave. Bridge	9/18/2000	ND(0.0505)	0.273 PE	0.702 AF	1.59 AG	2.57	0.409
LOC3-NB-L	Upstream of Dawes Ave. Bridge	9/18/2000	ND(0.0542)	0.190 PE	0.518 AF	1.29 AG	2.00	0.398
LOC3-SB-K	Upstream of Dawes Ave. Bridge	9/18/2000	ND(0.0553)	0.257 PE	0.681 AF	1.63 AG	2.57	0.490
LOC3-SB-L	Upstream of Dawes Ave. Bridge	9/18/2000	ND(0.0535)	0.362 PE	0.887 AF	2.01 AG	3.26	0.612

TABLE 9

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
HOUSATONIC RIVER CAGED MUSSEL STUDY  
PCB AND % LIPID DATA RECEIVED DURING OCTOBER 2000

(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, 1232, & 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs	% Lipids
LOC1NB-M	Upstream of Newell St. Bridge	10/3/2000	ND(0.0550)	ND(0.0550)	0.120 AF	0.0791 AG	0.199	0.597
LOC1NB-N	Upstream of Newell St. Bridge	10/3/2000	ND(0.0538)	ND(0.0538)	0.0813 AF	0.0615 AG	0.143	0.633
LOC1SB-M	Upstream of Newell St. Bridge	10/3/2000	ND(0.0541)	ND(0.0541)	0.0765 AF	ND(0.0541)	0.0765	0.673
LOC1SB-N	Upstream of Newell St. Bridge	10/3/2000	ND(0.0545)	ND(0.0545)	ND(0.0545)	ND(0.0545)	ND(0.0545)	0.611
LOC2NB-M	Downstream of Lyman St. Bridge	10/3/2000	ND(0.0514)	0.0966 PE	0.276 AF	0.695 AG	1.07	0.600
LOC2NB-N	Downstream of Lyman St. Bridge	10/3/2000	ND(0.0542)	0.0888 PE	0.263 AF	0.675 AG	1.03	0.712
LOC2SB-M	Downstream of Lyman St. Bridge	10/3/2000	ND(0.0538)	0.141 PE	0.379 AF	0.892 AG	1.41	0.740
LOC2SB-N	Downstream of Lyman St. Bridge	10/3/2000	ND(0.0540)	0.164 PE	0.430 AF	0.946 AG	1.54	0.732
LOC3NB-M	Upstream of Dawes Ave. Bridge	10/3/2000	ND(0.0555)	0.136 PE	0.441 AF	1.28 AG	1.86	0.495
LOC3NB-N	Upstream of Dawes Ave. Bridge	10/3/2000	ND(0.0509)	0.140 PE	0.444 AF	1.11 AG	1.69	0.509
LOC3SB-M	Upstream of Dawes Ave. Bridge	10/3/2000	ND(0.0556)	0.184 PE	0.494 AF	1.25 AG	1.93	0.417
LOC3SB-N	Upstream of Dawes Ave. Bridge	10/3/2000	ND(0.0509)	0.140 PE	0.428 AF	1.13 AG	1.70	0.512
LOC1NB-O	Upstream of Newell St. Bridge	10/16/2000	ND(0.0517)	ND(0.0517)	0.151 AF	0.114 AG	0.265	0.476
LOC1NB-P	Upstream of Newell St. Bridge	10/16/2000	ND(0.0525)	ND(0.0525)	0.133 AF	0.103 AG	0.236	0.391
LOC1SB-O	Upstream of Newell St. Bridge	10/16/2000	ND(0.0535)	ND(0.0535)	0.156 AF	0.113 AG	0.269	0.455
LOC1SB-P	Upstream of Newell St. Bridge	10/16/2000	ND(0.0515)	ND(0.0515)	0.114 AF	0.0871 AG	0.201	0.340
LCO2NB-O	Downstream of Lyman St. Bridge	10/16/2000	ND(0.0508)	0.123 PE	0.438 AF	1.44 AG	2.00	0.386
LOC2NB-P	Downstream of Lyman St. Bridge	10/16/2000	ND(0.0512)	0.127 PE	0.450 AF	1.30 AG	1.88	0.456
LOC2SB-O	Downstream of Lyman St. Bridge	10/16/2000	ND(0.0516)	0.108 PE	0.418 AF	1.09 AG	1.62	0.423
LOC2SB-P	Downstream of Lyman St. Bridge	10/16/2000	ND(0.0510)	0.102 PE	0.369 AF	1.05 AG	1.52	0.403
LOC3NB-O	Upstream of Dawes Ave. Bridge	10/16/2000	ND(0.0518)	0.168 PE	0.563 AF	1.42 AG	2.15	0.453
LOC3NB-P	Upstream of Dawes Ave. Bridge	10/16/2000	ND(0.0540)	0.141 PE	0.469 AF	1.30 AG	1.91	0.305
LOC3SB-O	Upstream of Dawes Ave. Bridge	10/16/2000	ND(0.0540)	0.157 PE	0.510 AF	1.55 AG	2.22	0.353
LOC3SB-P	Upstream of Dawes Ave. Bridge	10/16/2000	ND(0.0523)	0.128 PE	0.415 AF	1.35 AG	1.89	0.248

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis as whole body composites minus the shell for PCBs and percent lipids.
2. Results are reported as received and have not been corrected for percent lipids.
3. ND(0.10) - Analyte was not detected. The value in parentheses is the associated detection limit.
4. PE - Aroclor 1248 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1248 is not present in the sample, but is reported to more accurately quantify PCB present in sample that has undergone environmental alteration.
5. AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
6. AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

TABLE 10

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

DNAPL MONITORING RESULTS - OCTOBER 2000

Date	Depth to Water (Feet below MP)	Depth to DNAPL (Feet below MP)	Total Depth (Feet below MP)	DNAPL Thickness (Feet)	DNAPL Removal (Liters)
10/13/2000	7.40	22.50	22.70	0.20	0.00

Notes:

1. Measurement collected from coal tar DNAPL recovery well installed near oil/water separator 64X.
2. DNAPL - Dense Non-Aqueous Phase Liquid.
3. DNAPL removal is not conducted if the observed DNAPL thickness is less than 0.25 feet.

TABLE 11

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH  
SAMPLING OF OVERPACK DRUM CONTENTS  
DATA RECEIVED DURING OCTOBER 2000

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

Parameter	Sample ID: Date Collected:	HR-50046D 10/06/00
<b>Volatile Organics</b>		
Benzene		17
Toluene		440
<b>PCBs</b>		
Aroclor-1254		1300
Total PCBs		1300
<b>Semivolatile Organics</b>		
1,2,4-Trichlorobenzene		2.7
2,4-Dimethylphenol		890
2-Methylphenol		97
2-Nitrophenol		1.5
3&4-Methylphenol		1700
Benzo(a)anthracene		0.70
Benzo(b)fluoranthene		0.85
Chrysene		0.74
Diethylphthalate		0.78
Fluoranthene		1.4
Naphthalene		1.4
Phenol		2200
Pyrene		1.0
<b>Inorganics</b>		
Barium		68.0
Beryllium		0.810
Chromium		62.0
Copper		210
Lead		260
Nickel		31.0
Vanadium		32.0
Zinc		1900

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to CT&E Environmental Services, Inc. for analysis of PCBs, volatiles, semivolatiles, and Metals.
2. Only detected constituents are summarized.

TABLE 12

GENERAL ELECTRIC COMPANY  
PITTSFIELD, MASSACHUSETTS

REMOVAL ACTION - UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL G2 PIEZOMETER MONITORING RESULTS

Piezometer ID.	Date	Ground Elevation (Feet AMSL)	Measuring Point Elevation (Feet AMSL)	Depth to Water (Feet below MP)	Depth to NAPL (Feet below MP)	NAPL Thickness (Feet)	Groundwater Elevation (Feet AMSL)
G2-PZ-1	10/23/2000	975.47	975.97	5.46	ND	0.00	970.51
G2-PZ-1	10/24/2000	975.47	975.97	6.51	ND	0.00	969.46
G2-PZ-1	10/25/2000	975.47	975.97	4.99	ND	0.00	970.98
G2-PZ-1	10/26/2000	975.47	975.97	5.44	ND	0.00	970.53
G2-PZ-1	10/27/2000	975.47	975.97	4.76	ND	0.00	971.21
G2-PZ-1	10/30/2000	975.47	975.97	4.78	ND	0.00	971.19
G2-PZ-1	10/31/2000	975.47	975.97	4.90	ND	0.00	971.07
G2-PZ-2	10/23/2000	974.61	976.11	5.93	ND	0.00	970.18
G2-PZ-2	10/24/2000	974.61	976.11	7.12	7.11	0.01	969.00
G2-PZ-2	10/25/2000	974.61	976.11	5.29	ND	0.00	970.82
G2-PZ-2	10/26/2000	974.61	976.11	5.89	5.88	0.01	970.23
G2-PZ-2	10/27/2000	974.61	976.11	5.01	ND	0.00	971.10
G2-PZ-2	10/30/2000	974.61	976.11	5.04	ND	0.00	971.07
G2-PZ-2	10/31/2000	974.61	976.11	5.18	5.17	0.01	970.94

Notes:

1. Piezometers were installed by Blasland, Bouck & Lee, Incorporated on October 19, 2000, utilizing a jackhammer and macrocores fitted with dedicated disposable steel knockout tips.
2. Piezometers were constructed with 1-inch inside diameter PVC screens and risers.

1/2-Mile Removal Action Backfill Tracking Log

Material	Testing Required	Frequency (per cy)	Submittal from MTI		Submittal to EPA		Sample Date	Number of Samples	Quantity Approved for Placement	Quantity Placed (cy)	Comments	
			No.	Date	No.	Date						
Soil Backfill/Granular Fill (Brown's Pit)	Grain Size	2000	13/13A	11/17 & 11/18/99	8	12/1/1999	11/16/1999	1	1000	584	Samples Collected as part of Allendale School Project	
	PCBs	500	NA	NA	8A	12/15/1999	12/8/1999	2				
			NA	NA	14	5/31/2000	5/18/2000	2				
	VOCs	2000	NA	NA	8A	12/15/1999	7/21-7/28/99	6				
	SVOCs	2000	NA	NA	8A	12/15/1999	7/21-7/28/99	6				
	Metals	2000	NA	NA	8A	12/15/1999	7/21-7/28/99	6				
TPH	2000	NA	NA	8A	12/15/1999	12/1/1999	3					
Isolation Layer (Pittsfield Sand & Gravel)	Grain Size	500	12	11/17/1999	Letter	11/19/1999	11/1/1999	1	1000	770		
			12C	3/30/2000	Letter	4/20/2000	3/24/2000	1				
	TOC	500	12	11/17/1999	Letter	11/19/1999	11/2/1999	1				
			12C	3/30/2000	Letter	4/20/2000	3/30/2000	1				
	PCBs	500	NA	NA	Letter	11/19/1999	9/20/1999	4				Samples collected as part of off-site residential fill program
			NA	NA	7	12/1/1999	11/19/1999	2				
			NA	NA	Letter	4/20/2000	3/29/2000	2				
	VOCs	2000	NA	NA	Letter	11/19/1999	9/20/1999	4				Samples collected as part of off-site residential fill program
	SVOCs	2000	NA	NA	Letter	11/19/1999	9/20/1999	4				
	Metals	2000	NA	NA	Letter	11/19/1999	9/20/1999	4				
TPH	2000	NA	NA	7	12/1/1999	11/19/1999	2					
Isolation Layer (Bushika Sand & Gravel)	Grain Size	500	12A	1/3/2000	Letter	1/6/2000	12/28/1999	1	2500	2327		
			12B	1/24/2000	11	2/14/2000	1/19/2000	1				
			12D	5/8/2000	13	5/19/2000	5/2/2000	1				
			12E	9/11/2000	14	9/27/2000	9/7/2000	1				
			12F	9/29/2000	17	10/4/2000	9/26/2000	1				
			12A	1/3/2000	Letter	1/6/2000	12/28/1999	1				
	TOC	500	12B	1/24/2000	11	2/14/2000	1/19/2000	1				
			12D	5/8/2000	13	5/19/2000	5/2/2000	1				
			12E	9/11/2000	14	9/27/2000	9/6/2000	1				
	PCBs	500	12F	9/29/2000	17	10/4/2000	9/26/2000	1				
			NA	NA	10	1/14/2000	1/5/2000	2				
			NA	NA	11	2/14/2000	2/2/2000	2				
			NA	NA	13A	6/28/2000	6/2/2000	2				
	VOCs	2000	NA	NA	16A	10/4/2000	9/26/2000	3				
			NA	NA	18A	10/5/2000	9/28/2000	2				
			NA	NA	10	1/14/2000	1/5/2000	2				
	SVOCs	2000	NA	NA	18A	10/5/2000	9/28/2000	2				
			NA	NA	10	1/14/2000	1/5/2000	2				
	Metals	2000	NA	NA	10	1/14/2000	1/5/2000	2				
			NA	NA	18A	10/5/2000	9/28/2000	2				
	TPH	2000	NA	NA	10	1/14/2000	1/5/2000	2				
			NA	NA	11	2/14/2000	2/2/2000	2				
			NA	NA	18A	10/5/2000	9/28/2000	2				
	Rip-Rap (9")	Grain Size	2000	15A	11/30/1999	Letter	12/1/1999	11/23/1999				1
Rip-Rap (12")	Grain Size	2000	18	1/4/2000	Letter	1/6/2000	12/29/1999	1	2000	299		
Topsoil (Woodmont)	Organic Content	500	11/14	11/16 & 11/17/99	9	12/15/1999	11/8/1999	2	500	242	Samples collected as part of off-site residential fill program	
	pH	500	11/14	11/16 & 11/17/99	9	12/15/1999	11/8/1999	2				
	PCBs	500	NA	NA	9	12/15/1999	12/8/1999	4				
	VOCs	2000	NA	NA	9	12/15/1999	8/24/1999	4				
	SVOCs	2000	NA	NA	9	12/15/1999	8/24/1999	4				
	Metals	2000	NA	NA	9	12/15/1999	8/24/1999	4				
	TPH	2000	NA	NA	9	12/15/1999	12/8/1999	2				

Notes:

Granular Fill and Soil Backfill have been combined as the same material  
Quantities placed include Cells A, B, C, D, DNAPL, E, F-1, G-1, G-2 (upstream), and F-2



**½ MILE RIVER REMOVAL ACTION  
MONTHLY PROGRESS REPORT  
OCTOBER , 2000  
FIGURE 1 PHOTO DOCUMENTATION**

**PHOTO NUMBER: 1**

**PHOTO LOCATION:** Cell F-2

**PHOTO DESCRIPTION:**  
Construction of the south half of the W rock weir. Restoration of F-2 is complete.

**PHOTO DATE:** 10/03/00



**PHOTO NUMBER: 2**

**PHOTO LOCATION:** Cell G-2 (downstream)  
Along the lower bank area after initial excavation.

**PHOTO DESCRIPTION:**  
Close up of the observed NAPL

**PHOTO DATE:** 10/18/00



**PHOTO NUMBER: 3**

**PHOTO LOCATION:**  
Cell G-2 taken from the north bank.

**PHOTO DESCRIPTION:** Cell G-2  
partially de-watered showing large boil/void.  
Cell later filled with water on Oct. 25, 2000

**PHOTO DATE:** 10/24/00

