



SDMS: 287042

OF-0069

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

April 9, 2001

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 – March 2001**

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 March 2001 Monthly Report.

Please call with any questions.

Yours truly,

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

cc: J.R. Bieke, Esquire, Shea & Gardner
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1.0 Overview:

During March 2001, GE and its contractor Maxymillian Technologies Incorporated (MTI) continued work on the Upper ½ Mile Reach Removal Action. The primary work included activities in Cells G3 and F3. In Cell G3, GE completed remedial activities, including the installation of a recovery well associated with the source control sheetpile wall and restoration of the north bank along the river.

GE also began remedial activities in Cell F3 during the month of March. Work activities in Cell F3 included mobilizing equipment to the cell, installing sheetpile cutoff walls, installing a dewatering system, and initiating sediment and soil removal from the river and the bank. A cell-overtopping event occurred on March 22 and dense non-aqueous-phase liquid (DNAPL) was encountered during river sediment removal activities on March 27.

Weekly status meetings were held on March 7, 14, 21, and 28.

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. During the month of March 2001, GE Buildings 33-north, 33X and 65 were used as temporary storage facilities for TSCA and non-TSCA material. In addition, a new temporary storage area was maintained in Building 65 to stockpile NAPL-impacted sediment excavated from Cell F3 prior to off-site disposal.

In early March, the recovery well associated with the Cell G3 source control sheetpile wall was installed at the design bottom elevation of 968'. Bank restoration activities for Cell G3 were also completed in March. These work tasks included placing topsoil over the backfill areas, seeding and installing erosion control mats. A survey was conducted to record the Cell G3 final restored bank elevations. During mid-March, final placement of the habitat enhancement boulders in Cell G3 (as approved by the Massachusetts Executive Office of Environmental Affairs on behalf of the Trustees) was performed, and the upstream and downstream cutoff sheetpile walls were removed opening up the cell to the river flow.

Work activities began for Cell F3 by mobilizing equipment to the south side of the river. Brush clearing was completed at the top of the bank in addition to constructing pads for the base of the crane. The upstream cutoff sheetpile wall was pulled up (after being driven back down into the river following Cell F2 activities). The downstream cutoff wall was installed connecting to the existing centerline sheetpile wall to complete the containment for Cell F3. Initially, the water in the cell was pumped down to within six inches of the sediment by pumping the water into the river. The dewatering system was then installed in Cell F3, consisting of two-inch-diameter sump pumps placed at the

perimeter of the cell and fed to a main six-inch-diameter sump pump located near the downstream end of the cell. An HDPE pipe was installed along an I-beam bridge to transport the water from the cell across the river to the project water treatment system.

Treatment of the water was initiated on March 20 to allow removal activities to begin shortly thereafter; however, a substantial rainfall event occurred on March 21. This produced an overtopping of Cell F3 on March 22. The river elevation rose to the top of the centerline sheetpile wall and began to flow into the cell through the lifting holes located near the top of the sheets. As a result, the dewatering system was shut off and the cell was allowed to fill with water. Following cresting of the river, the cell floodwater was then pumped back into the river (with EPA consent) and water treatment activities were again initiated on March 26. Subsequently, the Contractor verified that the elevation of the lifting holes were low (974.5) and plugged the holes.

During the final week of March, soil and sediment removal activities in Cell F3 were initiated. Sediment removed from the river was initially transported to Building 33X for temporary stockpiling prior to placement in the appropriate On-Plant Consolidation Area (OPCA).

On March 27, 2001, during excavation work in the downstream part of Cell F3, DNAPL was observed in that cell in the form of a couple of small pools of DNAPL near the centerline sheetpiling about 100 feet from the downstream end of the cell. On the same date, this observation was reported to EPA, MDEP, and the National Response Center, and a sample of the DNAPL was collected for analysis. Additionally, an earthen berm was constructed around the area of the DNAPL, and oil-absorbent booms were placed between the DNAPL and the pump intake for the water handling system. On March 28, 2001, GE notified EPA and MDEP that this finding of DNAPL in Cell F3 could potentially constitute a force majeure event under the Consent Decree. On the same date, GE installed three sediment cores in the bottom of the river to evaluate the horizontal and vertical extent of the DNAPL. The three cores were installed and collected to a depth of 4 feet from a 10' x 10' area surrounding the DNAPL. NAPL-impacted sediment was observed in the upper 0- to 1-foot interval of the sediment core located downstream of the DNAPL. NAPL was not observed in the other two sediment cores. Based on this information, on March 29, GE conducted a relatively shallow further excavation in the area of the DNAPL in an effort to remove the DNAPL. With EPA approval, that excavation involved the removal of approximately 10 cubic yards (cy) of NAPL-containing sediment and, based on visual observation, successfully removed the DNAPL from the river bottom. The excavated sediment was transported to the Building 65 containment area for staging prior to being characterized for disposal purposes. The excavation was then backfilled with washed stone to address the presence of small boils.

GE also continued to monitor for coal-tar DNAPL in the 6-inch-diameter coal-tar DNAPL recovery well in former Cell C. In March, coal-tar DNAPL was not collected from the well. However, 0.10 feet of DNAPL was observed in this well on March 15. Monitoring of coal-tar DNAPL at this well will continue during the month of April; however, it will be reported under the Plant Site 1 Groundwater Management Area (GMA 1) program in the future.

Also in March, GE continued monitoring events at the three monitoring wells associated with the Cell G1 source control barrier wall. No measurable amounts of NAPL were observed in these wells in March. Monitoring of these wells will continue during the month of April; however, the results will be reported under the GMA 1 program in the future.

In addition, GE continued to monitor the recovery and monitoring wells associated with the Cell G2 source control barrier wall. LNAPL was observed at a thickness of 0.01 feet in the recovery well on March 19 and March 26, but was not recoverable at this thickness. LNAPL was not observed in either of the two monitoring wells during this period. Monitoring of these wells will continue during the month of April.

GE also continued to monitor the recovery well associated with the Cell G3 source control barrier wall. No measurable amount of NAPL was observed in this well in March. Monitoring of this well will continue during the month of April.

Air monitoring for particulate matter was conducted daily and a PCB air-monitoring event was conducted on March 27, 2001 during excavation activities in Cell F3. Water column (PCB and TSS) monitoring was also continued in March. Temporary stockpiles of material were maintained in Buildings 33, 33X, and 65 (TSCA and non-TSCA).

Finally, during March, GE began discussions with EPA regarding a revised estimated project planning timetable and a revised completion date for this Removal Action.

3.0 Number of samples collected:

Table 1 presents the analytical results for PCBs and TOC for the Cell G3 isolation sand.

Table 2 presents a summary of analytical results for PCBs from backfill soil sampling.

Table 3 presents a summary of analytical results, including PCBs, VOCs, and SVOCs, from the DNAPL sample collected in Cell F3.

In the month of March, particulate air monitoring was conducted from March 1 through March 30, 2001. The results of the March air monitoring events are presented in Table 4.

The monthly PCB air-monitoring event was conducted on March 27, 2001. The analytical results are attached to this report in Table 5.

Water column monitoring for turbidity was conducted on a daily basis during the month of March and the results are presented in Table 6A. Water column samples were collected for total suspended solids (TSS) and PCB analysis on March 1, March 15, and March 30, 2001. The TSS and PCB results received in March are attached to this report in Tables 6A and 6B.

Table 7 presents the results from monthly monitoring of the coal-tar DNAPL recovery well in former Cell C/D.

Table 8 presents the results from the three monitoring wells associated with the Cell G1 source control barrier wall.

Table 9 presents the results from the monitoring of the NAPL recovery and monitoring wells associated with the Cell G2 source control barrier wall.

Table 10 presents the results from the monitoring of the NAPL recovery well associated with the Cell G3 source control barrier wall.

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 reports received and prepared:

During the month of March, meeting summaries from the weekly project status meetings were submitted to EPA, MDEP and the Massachusetts Executive Office of Environmental Affairs. Also, for work completed in February 2001, the monthly reports required by the Consent Decree and the Upper ½ Mile Reach Removal Action Work Plan were both submitted on March 9, 2001.

In addition, during March, GE submitted the following:

- Letter report entitled *Cell G1 Monitoring Results and Proposed Modifications to Baseline Monitoring Program* (March 9, 2001).
- Cell G3 final restored river survey.
- Cell G3 final bank restoration survey.
- Cell F3 pre-removal baseline survey.
- Cell F3 proposed removal/restoration survey.

During March, GE also received the Upper ½-Mile Reach Restored Area Sediment Sampling Report from EPA.

6.0 Photo documentation of activities performed:

- See attached Figure 1.

7.0 Brief description of work to be performed in April 2001:

For the next reporting period, the following activities are anticipated to take place:

- Complete installation of remaining Cell G2 and G3 monitoring wells.
- Continue monitoring coal-tar LNAPL recovery and monitoring wells associated with the Cell G2 source control sheetpile wall.
- Continue monitoring of the coal-tar DNAPL recovery well associated with the Cell G3 source control sheetpile wall.
- Continue removal and restoration activities in Cell F-3 (south side of the river) and address any reappearance of DNAPL in that cell.
- Initiate removal and restoration activities in Cell H1.
- Maintain temporary stockpiles of material in Buildings 33, 33X, and 65 (Non-TSCA, TSCA, and NAPL-impacted, respectively).
- Continue to conduct air monitoring and water column monitoring.

- Continue discussions with EPA regarding a revised estimated project planning timetable and a revised completion date for this Removal Action.

8.0 Attachments to this report:

- Table 1 – Analytical results for PCBs and TOC for the Cell G3 isolation sand.
- Table 2 - Analytical results from the bank soil backfill for PCBs.
- Table 3 - Analytical results for DNAPL oil collected from Cell F3.
- Table 4 – Particulate air monitoring results.
- Table 5 – PCB air monitoring results.
- Table 6A – Water column monitoring turbidity results.
- Table 6B – Water column monitoring PCB and TSS results.
- Table 7 - Monitoring results from the DNAPL recovery well in former Cell C/D.
- Table 8 - Monitoring results from the NAPL recovery and monitoring wells in Cell G1.
- Table 9 - Monitoring results from the coal-tar NAPL recovery and monitoring wells in Cell G2.
- Table 10 - Monitoring results from the coal-tar NAPL recovery and monitoring wells in Cell G3.
- 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 and sample summary chart.
- Figure 1 - Photo documentation.

TABLE 1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
CELL G3 RIVER CAP ISOLATION LAYER SAMPLING
PCB/TOC DATA RECEIVED DURING MARCH 2001

(Results are presented in parts per million, ppm)

Sample ID	Depth (Inches)	Date Collected	Aroclor 1016, 1221, 1232, 1242, 1248, 1254, & 1260	Total PCBs	TOC
CAP-MON-4	2 - 4	2/27/01	ND(0.0636) [ND(0.0630)]	ND(0.0636) [ND(0.0630)]	15,240 [10,972]
	4 - 6	2/27/01	ND(0.0580)	ND(0.0580)	1,591
	6 - 8	2/27/01	ND(0.0558)	ND(0.0558)	27,624

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs and to Spectrum for analysis of Total Organic Carbon (TOC).
2. ND - Analyte was not detected. The value in parentheses is the associated detection limit.
3. Duplicate results are presented in brackets.

TABLE 2

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER UPPER 1/2 MILE REACH
BACKFILL SOIL SAMPLING
PCB DATA RECEIVED DURING MARCH 2001

(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
DH-BF-5	2/28/01	ND(0.0640) [ND(0.0655)]	0.140 [ND(0.0655)]	0.140 [ND(0.0655)]
DH-BF-6	2/28/01	ND(0.0586)	ND(0.0586)	ND(0.0586)
BSG-BF-7	3/19/01	ND(0.0556)	ND(0.0556)	ND(0.0556)
BSG-BF-8	3/19/01	ND(0.0578) [ND(0.0588)]	ND(0.0578) [ND(0.0588)]	ND(0.0578) [ND(0.0588)]

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. Duplicate sample results are presented in brackets.

TABLE 3

PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
CELL F3 OIL SAMPLING
DATA RECEIVED DURING MARCH 2001

(Results are presented in parts per million, ppm)

Parameter	Sample ID:	HR-F3-OIL-1
	Date Collected:	03/27/01
Volatile Organics		
Acetone		50 JB
Chlorobenzene		470
PCBs		
Aroclor-1260		438000
Total PCBs		438000
Semivolatile Organics		
1,2,4-Trichlorobenzene		98700
1,4-Dichlorobenzene		26800

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs, VOCs, and SVOCs.
2. Only detected constituents are summarized.
3. J - Indicates an estimated value less than the practical quantitation limit (PQL).
4. B - Analyte was also detected in the associated method blank.

TABLE 4

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**HOUSATONIC RIVER - UPPER 1/2 MILE REACH
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING MARCH 2001**

Date	Sampler Location	Average Site Concentration (mg/m ³)	BM-1 (mg/m ³)	Average Period (Hours:Min)	Predominant Wind Direction
3/1/01	AM-4 (south side of river)	0.009	0.003	8:45	W, WNW
3/2/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/5/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/6/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/7/01	AM-4 (south side of river)	0.004	0.003	10:15	NNW, N
3/8/01	AM-4 (south side of river)	0.013	0.023	7:45 ²	SSW
3/9/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/12/01	AM-4 (south side of river)	0.005	0.004	10:15	WSW - NW
3/13/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/14/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/15/01	AM-4 (south side of river)	0.007	0.011	9:30	W
3/16/01	AM-4 (south side of river)	0.013	0.014	9:30	W
3/19/01	AM-4 (south side of river)	0.004	0.006	7:45 ²	NW, NNW
3/20/01	AM-4 (south side of river)	0.009	0.015	10:15	Calm
3/21/01	AM-4 (south side of river)	0.007	0.008	10:15	E
3/22/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/23/01	AM-4 (south side of river)	0.007	0.000	8:15	WNW, W
3/26/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
3/27/01	AM-4 (south side of river)	0.012	0.001	10:00	WNW, W
3/28/01	AM-4 (south side of river)	0.013	0.003	10:30	WNW
3/29/01	AM-4 (south side of river)	0.018	0.019	8:15 ²	SSW
3/30/01 ¹	AM-4 (south side of river)	NA	NA	NA	NA
Notification Level		0.120			

Notes:

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

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

¹ Sampling was not performed due to precipitation/threat of precipitation.

² Sampling period was shortened due to instrument failure.

TABLE 5

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

**HOUSATONIC RIVER - UPPER 1/2 MILE REACH
AMBIENT AIR PCB DATA RECEIVED DURING MARCH 2001**

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
03/27 - 03/28/01	ND (<0.0003)	ND (<0.0003)	ND (<0.0003)	0.0005	ND (<0.0003) ¹	ND (<0.0003)
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.

¹ It appears that this sampler lost power 21.33 hours into this event. The total volume of air sampled by this sampler was 288 m³. This sample did not meet sample validity requirements as defined in GE's Field Sampling Plan/Quality Assurance Project Plan dated September 2000.

TABLE 6A

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

MARCH 2001

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

Location	Date	Water Depth (ft)	Water Temp. (°C)	Estimated Flow ¹⁵ (cfs)	Turbidity (ntu) ¹²			Sample ID	Total PCB Concentration ¹³ (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	3/1/01	1.7	1	65	4	2	2	HR-3-1-01-U1	ND(0.0250)	ND(0.0250)	1.40
Downstream of Lyman St. Bridge	3/1/01	2.7	1		3	2	2	HR-3-1-01-D1	ND(0.0250)	ND(0.0250)	1.80
Upstream of Newell St. Bridge	3/2/01	1.7	0	63	4	3	3	---	---	---	---
Downstream of Lyman St. Bridge	3/2/01	2.8	0		4	3	3	---	---	---	---
Upstream of Newell St. Bridge	3/5/01	1.7	0	56	4	3	3	---	---	---	---
Downstream of Lyman St. Bridge	3/5/01	2.8	0		3	3	3	---	---	---	---
Upstream of Newell St. Bridge	3/6/01	---	---	68	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	3/6/01	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	3/7/2001	1.9	0	69	8	5	6	---	---	---	---
Downstream of Lyman St. Bridge	3/7/01	3.0	0		6	5	6	---	---	---	---
Upstream of Newell St. Bridge	3/8/01	1.6	1	66	6	5	6	---	---	---	---
Downstream of Lyman St. Bridge	3/8/01	2.8	1		7	4	5	---	---	---	---
Upstream of Newell St. Bridge	3/9/01	1.6	1	59	4	3	4	---	---	---	---
Downstream of Lyman St. Bridge	3/9/01	2.8	1		4	4	4	---	---	---	---
Upstream of Newell St. Bridge	3/12/01	1.5	0	77	5	4	5	---	---	---	---
Downstream of Lyman St. Bridge	3/12/01	2.7	0		6	2	4	---	---	---	---
Upstream of Newell St. Bridge	3/13/01	1.7	2	63	6	4	8	---	---	---	---
Downstream of Lyman St. Bridge	3/13/01	2.8	2		9	3	11	---	---	---	---
Upstream of Newell St. Bridge	3/14/01	1.8	3	75	9	6	8	---	---	---	---
Downstream of Lyman St. Bridge	3/14/01	2.9	3		20	8	11	---	---	---	---
Upstream of Newell St. Bridge	3/15/01	2.1	4	63	8	3	8	HR-3-15-01-U1	ND(0.0250)	ND(0.0250)	4.62
Downstream of Lyman St. Bridge	3/15/01	3.0	4		8	3	7	HR-3-15-01-D1	0.0783	ND(0.0250)	5.07
Upstream of Newell St. Bridge	3/16/01	2.1	4	63	12	5	9	---	---	---	---
Downstream of Lyman St. Bridge	3/16/01	2.8	4		14	7	9	---	---	---	---
Upstream of Newell St. Bridge	3/19/01	2.1	1	69	7	4	4	---	---	---	---
Downstream of Lyman St. Bridge	3/19/01	2.9	1		6	3	5	---	---	---	---
Upstream of Newell St. Bridge	3/20/01	2.1	4	69	10	4	5	---	---	---	---
Downstream of Lyman St. Bridge	3/20/01	2.9	4		9	3	7	---	---	---	---
Upstream of Newell St. Bridge	3/21/01	2.4	4	83	6	3	5	---	---	---	---
Downstream of Lyman St. Bridge	3/21/01	3.0	4		4	3	4	---	---	---	---
Upstream of Newell St. Bridge	3/22/01	---	---	328	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	3/22/01	---	---		NS	NS	NS	---	---	---	---

TABLE 6A

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

MARCH 2001

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

Location	Date	Water Depth (ft)	Water Temp. (°C)	Estimated Flow ¹⁵ (cfs)	Turbidity (ntu) ¹²			Sample ID	Total PCB Concentration ¹³ (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	3/23/01	---	---	282	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	3/23/01	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	3/26/01	3.0	1	172	5	4	5	---	---	---	---
Downstream of Lyman St. Bridge	3/26/01	3.6	1		5	3	5	---	---	---	---
Upstream of Newell St. Bridge	3/27/01	2.9	0	138	4	2	3	---	---	---	---
Downstream of Lyman St. Bridge	3/27/01	3.4	0		3	3	4	---	---	---	---
Upstream of Newell St. Bridge	3/28/01	2.6	2	99	5	4	3	---	---	---	---
Downstream of Lyman St. Bridge	3/28/01	3.2	2		6	3	3	---	---	---	---
Upstream of Newell St. Bridge	3/29/01	2.3	3	99	4	3	4	---	---	---	---
Downstream of Lyman St. Bridge	3/29/01	3.1	3		5	4	3	---	---	---	---
Upstream of Newell St. Bridge	3/30/01	2.5	1	87	10	3	7	HR-3-30-01-U1	NR	NR	NR
Downstream of Lyman St. Bridge	3/30/01	3.1	1		9	3	5	HR-3-30-01-D1	NR	NR	NR

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
14. NS - Not sampled due to frozen river conditions or high flow.
15. Flow data was obtained from the USGS Station 01197000 in Coltsville, MA at approximately midday. (Flow data is provisional and may be subject to revision).

TABLE 6B

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
HOUSATONIC RIVER PCB/TSS MONITORING DURING CONSTRUCTION
DATA RECEIVED DURING MARCH 2001

(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, 1232, 1242, 1248, & 1254	Aroclor 1260	Total PCBs	TSS
HR-3-01-01-D1	Downstream of Lyman St. Bridge	3/1/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	1.80
HR-3-01-01-U1	Upstream of Newell St. Bridge	3/1/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	1.40
HR-3-01-01-D1 (FILTERED)	Downstream of Lyman St. Bridge	3/1/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---
HR-3-01-01-U1 (FILTERED)	Upstream of Newell St. Bridge	3/1/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---
HR-3-15-01-D1	Downstream of Lyman St. Bridge	3/15/01	ND(0.0000250)	0.0000783 AG	0.0000783	5.07
HR-3-15-01-U1	Upstream of Newell St. Bridge	3/15/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	4.62
HR-3-15-01-D1 (FILTERED)	Downstream of Lyman St. Bridge	3/15/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---
HR-3-15-01-U1 (FILTERED)	Upstream of Newell St. Bridge	3/15/01	ND(0.0000250)	ND(0.0000250)	ND(0.0000250)	---

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical Services, Inc. for analysis of filtered and unfiltered PCBs and Total Suspended Solids (TSS).
2. ND(0.10) - Analyte was not detected. The value in parentheses is the associated detection limit.
3. --- - Not analyzed.
4. AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

TABLE 7

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL C/D DNAPL MONITORING RESULTS - MARCH 2001

Well I.D.	Date	Depth to Water (Feet below MP)	Depth to DNAPL (Feet below MP)	Total Depth (Feet below MP)	DNAPL Thickness (Feet)	DNAPL Removal (Liters)
HR-C-RW-1	3/15/01	6.60	22.60	22.70	0.10	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 8

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS**

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL G-1 MONITORING RESULTS - MARCH 2001

Well I.D.	Date	Measuring Point Elevation (Feet AMSL)	Depth to Water (Feet below MP)	Depth to NAPL (Feet below MP)	Total Depth (Feet below MP)	NAPL Thickness (Feet)	Corrected Groundwater Elevation (Feet AMSL)	NAPL Removal (Liters)
HR-G1-MW-1	3/5/01	982.42	10.40	---	20.35	0.00	972.02	0.00
HR-G1-MW-1	3/12/01	982.42	10.41	---	20.33	0.00	972.01	0.00
HR-G1-MW-1	3/19/01	982.42	9.79	---	20.34	0.00	972.63	0.00
HR-G1-MW-1	3/26/01	982.42	8.82	---	20.35	0.00	973.60	0.00
HR-G1-MW-2	3/5/01	980.23	8.11	---	28.51	0.00	972.12	0.00
HR-G1-MW-2	3/12/01	980.23	8.07	---	28.52	0.00	972.16	0.00
HR-G1-MW-2	3/19/01	980.23	7.52	---	28.50	0.00	972.71	0.00
HR-G1-MW-2	3/26/01	980.23	6.54	---	28.51	0.00	973.69	0.00
HR-G1-MW-3	3/5/01	980.25	8.41	---	17.96	0.00	971.84	0.00
HR-G1-MW-3	3/12/01	980.25	8.47	---	17.94	0.00	971.78	0.00
HR-G1-MW-3	3/19/01	980.25	7.74	---	17.96	0.00	972.51	0.00
HR-G1-MW-3	3/26/01	980.25	6.79	---	17.96	0.00	973.46	0.00

Notes:

1. NAPL = Non-Aqueous Phase Liquid.
2. MP = Measuring Point
3. Feet AMSL = Feet Above Mean Sea Level

TABLE 9

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL G-2 MONITORING RESULTS - MARCH 2001

Well I.D.	Date	Measuring Point Elevation (Feet AMSL)	Depth to Water (Feet below MP)	Depth to NAPL (Feet below MP)	Total Depth (Feet below MP)	NAPL Thickness (Feet)	Corrected Groundwater Elevation (Feet AMSL)	NAPL Removal (Liters)
HR-G2-MW-1	03/05/01	982.60	10.96	---	18.29	0.00	971.64	0.00
HR-G2-MW-1	03/12/01	982.60	11.02	---	18.30	0.00	971.58	0.00
HR-G2-MW-1	03/19/01	982.60	10.16	---	18.29	0.00	972.44	0.00
HR-G2-MW-1	03/26/01	982.60	9.25	---	18.29	0.00	973.35	0.00
HR-G2-MW-2	03/05/01	981.39	9.57	---	17.69	0.00	971.82	0.00
HR-G2-MW-2	03/12/01	981.39	9.53	---	17.69	0.00	971.86	0.00
HR-G2-MW-2	03/19/01	981.39	8.68	---	17.69	0.00	972.71	0.00
HR-G2-MW-2	03/26/01	981.39	7.89	---	17.69	0.00	973.50	0.00
HR-G2-RW-1	3/5/01	976.88	See Note 4	---	---	---	---	0.00
HR-G2-RW-1	3/12/01	976.88	6.88	---	18.73	0.00	970.00	0.00
HR-G2-RW-1	3/19/01	976.88	5.74	5.73	18.73	0.01	971.15	0.00
HR-G2-RW-1	3/26/01	976.88	4.61	4.60	18.73	0.01	972.28	0.00

Notes:

1. NAPL = Non-Aqueous Phase Liquid.
2. MP = Measuring Point
3. Feet AMSL = Feet Above Mean Sea Level
4. Well HR-G2-RW-1 was frozen at a depth of 7.13 feet on March 5, 2001; therefore measurements could not be collected.
5. Water table elevations for wells containing LNAPL were computed as follows:

$$\text{Water Table Elevation} = \text{Measuring Point Elevation} - \text{Depth to Water} + (\text{LNAPL Thickness} \times \text{Specific Density of LNAPL})$$
 Specific Density of LNAPL estimated at 0.93.

TABLE 10

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL G-3 MONITORING RESULTS - MARCH 2001

Well I.D.	Date	Measuring Point Elevation (Feet AMSL)	Depth to Water (Feet below MP)	Depth to NAPL (Feet below MP)	Total Depth (Feet below MP)	NAPL Thickness (Feet)	Groundwater Elevation (Feet AMSL)	NAPL Removal (Liters)
HR-G3-RW-1	3/20/01	977.78	5.27	See Note 4	9.25	<0.01	972.51	0.00
HR-G3-RW-1	3/26/01	977.78	4.41	---	9.17	0.00	973.37	0.00

Notes:

1. NAPL = Non-Aqueous Phase Liquid.
2. MP = Measuring Point
3. Feet AMSL = Feet Above Mean Sea Level
4. A trace of NAPL was observed on the measuring probe, but a measurable NAPL thickness was not present.

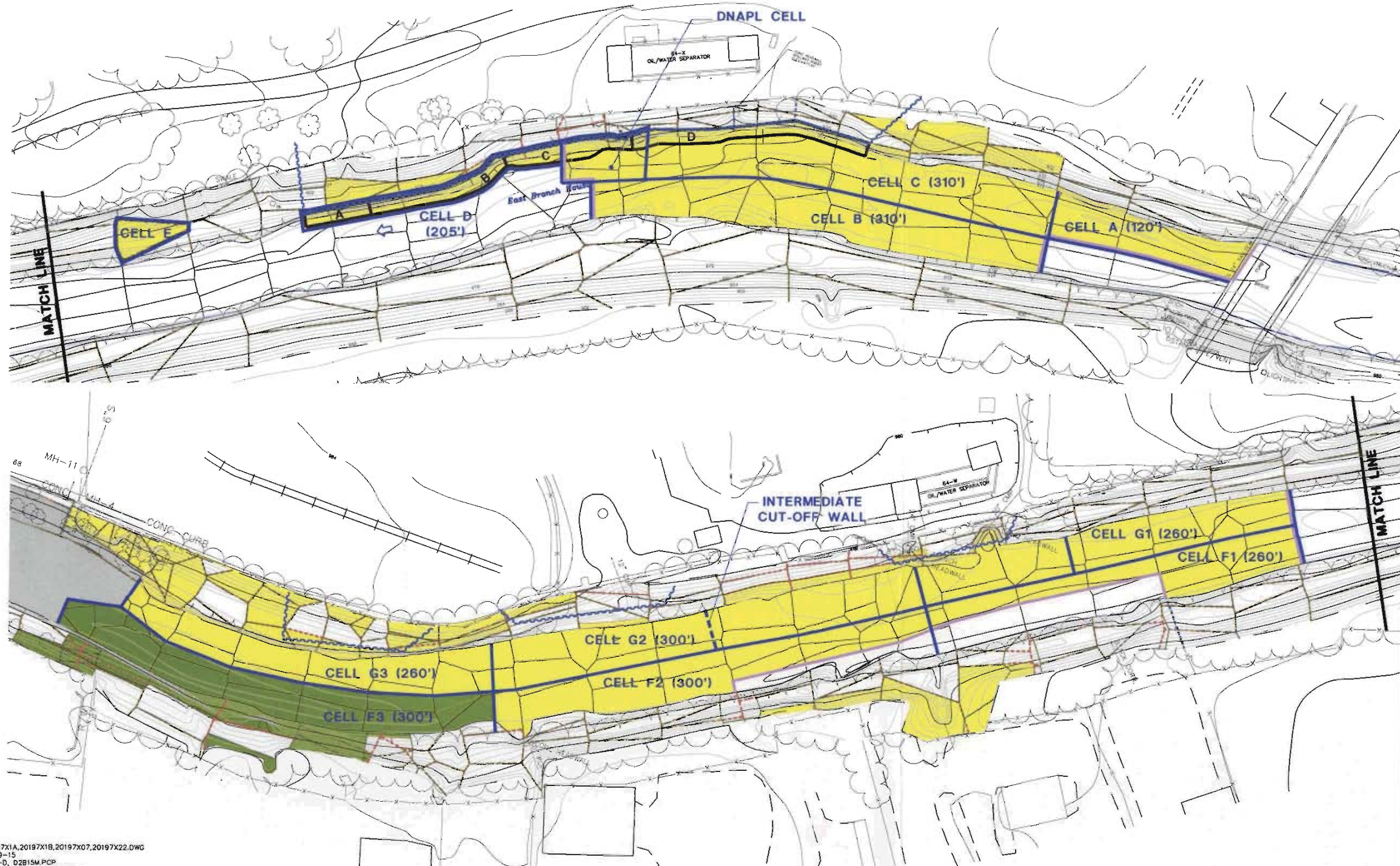
1/2-Mile Removal Action Backfill Tracking Log

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	12/1/99	11/16/99	1	1500	1314	Samples Collected as part of Allendale School Project
	PCBs	500	NA	NA	8A	12/15/99	12/8/99	2			
			NA	NA	14	5/31/00	5/18/00	2			
			NA	NA	22	3/14/01	2/28/01	2			
	VOCs	2000	NA	NA	8A	12/15/99	7/21-7/28/99	6			
	SVOCs	2000	NA	NA	8A	12/15/99	7/21-7/28/99	6			
	Metals	2000	NA	NA	8A	12/15/99	7/21-7/28/99	6			
TPH	2000	NA	NA	8A	12/15/99	12/1/99	3				
Isolation Layer (Pittsfield Sand & Gravel)	Grain Size	500	12	11/17/99	Letter	11/19/99	11/1/99	1	1000	770	Samples collected as part of off-site residential fill program
			12C	3/30/00	Letter	4/20/00	3/24/00	1			
	TOC	500	12	11/17/99	Letter	11/19/99	11/2/99	1			
			12C	3/30/00	Letter	4/20/00	3/30/00	1			
	PCBs	500	NA	NA	Letter	11/19/99	9/20/99	4			
			NA	NA	7	12/1/99	11/19/99	2			
			NA	NA	Letter	4/20/00	3/29/00	2			
	VOCs	2000	NA	NA	Letter	11/19/99	9/20/99	4			
	SVOCs	2000	NA	NA	Letter	11/19/99	9/20/99	4			
	Metals	2000	NA	NA	Letter	11/19/99	9/20/99	4			
TPH	2000	NA	NA	7	12/1/99	11/19/99	2				
Isolation Layer (Bushika Sand & Gravel)	Grain Size	500	12A	1/3/00	Letter	1/6/00	12/28/99	1	3500	2937	
			12B	1/24/00	11	2/14/00	1/19/00	1			
			12D	5/8/00	13	5/19/00	5/2/00	1			
			12E	9/11/00	14	9/27/00	9/7/00	1			
			12F	9/29/00	17	10/4/00	9/26/00	1			
			12G	11/30/00	20	12/6/00	10/20/00	1			
			12H	3/8/01	21	3/14/01	3/5/01	1			
			TOC	500	12A	1/3/00	Letter	1/6/00			
	12B	1/24/00			11	2/14/00	1/19/00	1			
	12D	5/8/00			13	5/19/00	5/2/00	1			
	12E	9/11/00			14	9/27/00	9/6/00	1			
	12F	9/29/00			17	10/4/00	9/26/00	1			
	12G	11/30/00			20	12/6/00	10/20/00	1			
	12H	3/8/01			21	3/14/01	3/5/01	1			
	PCBs	500			NA	NA	10	1/14/00			
			NA	NA	11	2/14/00	2/2/00	2			
			NA	NA	13A	6/28/00	6/2/00	2			
			NA	NA	16A	10/4/00	9/26/00	3			
			NA	NA	18A	10/5/00	9/28/00	2			
			NA	NA	20A	1/9/01	12/5/00	2			
			NA	NA	21A	4/4/01	3/19/01	2			
			VOCs	2000	NA	NA	10	1/14/00			
	NA	NA			18A	10/5/00	9/28/00	2			
	SVOCs	2000	NA	NA	10	1/14/00	1/5/00	2			
			NA	NA	18A	10/5/00	9/28/00	2			
	Metals	2000	NA	NA	10	1/14/00	1/5/00	2			
			NA	NA	18A	10/5/00	9/28/00	2			
	TPH	2000	NA	NA	10	1/14/00	1/5/00	2			
			NA	NA	11	2/14/00	2/2/00	2			
			NA	NA	18A	10/5/00	9/28/00	2			
Rip-Rap (9")	Grain Size	2000	15A	11/30/99	Letter	12/1/99	11/23/99	1	4000	2299	
			15B	10/4/00	19	10/11/00	9/28/00	1			
Rip-Rap (12")	Grain Size	2000	18	1/4/00	Letter	1/6/00	12/29/99	1	2000	438	
Topsoil (Woodmont)	Organic Content	500	11/14	11/16 & 11/17/99	9	12/15/99	11/8/99	2	500	400	Samples collected as part of off-site residential fill program
	pH	500	11/14	11/16 & 11/17/99	9	12/15/99	11/8/99	2			
	PCBs	500	NA	NA	9	12/15/99	12/8/99	4			
	VOCs	2000	NA	NA	9	12/15/99	8/24/99	4			
	SVOCs	2000	NA	NA	9	12/15/99	8/24/99	4			
	Metals	2000	NA	NA	9	12/15/99	8/24/99	4			
	TPH	2000	NA	NA	9	12/15/99	12/8/99	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, F-2, and G.

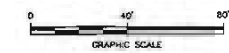
Exhibit A - Upper 1/2 Mile Reach Removal Action

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