



SDMS: 287041

08-0068

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

March 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 – February 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 February 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
M.T. Carroll, GE
T. Conway, EPA
R. Goff, ACE
H. Inglis, EPA
J.H. Maxymillian, Maxymillian Technologies
B.T. McKinsey, BBL
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 February 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 G2 and G3. In Cell G2, GE removed the sheetpile cutoff walls and installed two of the monitoring wells associated with the Cell G2 source control sheetpile barrier wall. Work in Cell G3 included river sediment and additional bank soil removal associated with the source control sheetpile barrier wall, additional excavation of the cell to address the December 2000 flood event, installation of the Cell G3 source control barrier wall, and initiation of restoration activities.

Weekly status meetings were held on February 7, 14, 21, and 28. No work was performed on February 19, 2001 due to the holiday.

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 February 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 (constructed in January) was maintained in Building 65 to stockpile potentially NAPL-impacted sediment excavated from Cell G2 prior to off-site disposal.

In early February, following final river and bank restoration activities in Cell G2, the cutoff sheetpile walls were removed from the river and the cell was allowed to fill with water. Approximately 300 tons (~200 CY) of the excavated sediment from Cell G2 that was staged in Building 65 was removed for off-site disposal. To begin work tasks in Cell G3, a 6" sump pump was installed and the cell was dewatered. Work in Cell G3 continued with addressing the NAPL encountered during bank excavation activities. Following a survey for the location of the Waterloo sheetpile wall, bank excavation activities were completed.

During the bank soil removal in Cell G3, two drums were encountered behind the location of the Waterloo wall. The larger drum (approximately 80 gal.) appeared intact; the other smaller drum (approximately 30 gal.) was not intact and contained a solid dark brown/black material. The two drums were removed from the Cell G3 bank and staged within a bermed area. Following staging in Building 65, the large empty drum was disposed of off-site along with Cell G2 impacted sediment. The small drum was overpacked and transported to Building 12 for characterization sampling prior to off-site disposal.

The second week in February continued with Cell G3 activities. Additional sheeting was installed in the north bank at the downstream end of Cell G3 to address erosion from the December 17 & 18, 2000 flood event. The Waterloo sheeting was received on site on February 7. A template was constructed for alignment purposes prior to installing the

Waterloo sheetpile wall. At the completion of the Waterloo sheetpile wall installation, approximately 140 linear feet (LF) of wall was in place.

The following week, the Cell G3 Waterloo sheetpile joints were flushed and the tops of the sheets were cut at the design elevation. Following the flushing activities, the Waterloo joints were filled with grout. In addition, two of the monitoring wells associated with the Cell G2 source control sheetpile barrier wall were installed.

The next work tasks completed in Cell G3 included the grouting of the base of the Waterloo sheetpile wall at the peat containing layer along the section parallel to the river and the wing walls. Concurrently with the grouting activities, additional sediment was removed from Cell G3 to address the December 2000 flood event. Initially, the EPA requested that 3-inches (or less if on top of the peat layer) of sediment be removed. After checking a vertical survey benchmark, it was discovered that the peat layer had apparently expanded upward approximately 9 inches. Up to 12 inches of sediment were removed in some areas of Cell G3 to return to the original excavation elevation. The excavated material was transported to Building 33X for staging prior to placement in the OPCAs. Following additional excavation activities, the Cell G3 riverbed was surveyed to confirm removal limits had been achieved. In addition, a sediment sample was collected from the base of the excavation for monitoring of the cap system.

During the final week of February, river and bank restoration activities were conducted in Cell G3. The river restoration activities included installing the isolation cap system. Following placement of the isolation sand, a sample was collected from the sand layer to provide baseline data for monitoring the isolation layer. Bank restoration activities proceeded with preparation for the installation of the NAPL recovery well associated with the Cell G3 source control barrier wall.

GE also continued to monitor for coal-tar DNAPL in the 6-inch-diameter coal-tar DNAPL recovery well in former Cell C. In February, DNAPL was not collected from this well. Monitoring of coal-tar DNAPL at this well will continue.

Also in February, GE performed 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 during February and monitoring will continue during the month of March.

In addition, GE monitored the recovery and monitoring wells associated with the Cell G2 source control barrier wall. No measurable amounts of NAPL were observed or detected in these wells and monitoring will continue during the month of March.

Air monitoring for particulate matter was conducted daily and a PCB air monitoring event was conducted on February 5, 2001, during excavation activities in Cell G3. Water column (PCB and TSS) monitoring was also continued in February. Temporary stockpiles of material were maintained in Buildings 33, 33X, and 65 (TSCA and non-TSCA).

3.0 Number of samples collected:

Table 1 presents a summary of analytical results including PCBs, VOCs, and SVOCs from the NAPL oil sample collected in Cell G3.

Table 2 presents analytical results of wipe samples for PCBs from the drilling equipment used in Cell G2.

Table 3 presents a summary of analytical results for PCBs, VOCs, SVOCs, and inorganics from the contents of the small drum found during the additional bank excavation in Cell G3.

Water column monitoring for total suspended solids (TSS) was conducted on a daily basis. Water column samples were collected for PCB analysis on February 14, 2001. The TSS and PCB results received in February are attached to this report in Tables 4A and 4B, respectively.

In the month of February, particulate air monitoring was conducted from February 1 through February 28, 2001. The results of the February air monitoring events are presented in Table 5.

PCB air monitoring was conducted on February 5, 2001. The analytical results are attached to this report in Table 6.

Table 7 presents the analytical results for PCBs from the sediment sample collected from the base of the Cell G3 excavation.

Table 8 presents the results from monthly monitoring of the coal-tar DNAPL recovery well in former Cell C/D.

Table 9 presents the results from the three monitoring wells associated with the Cell G1 source control barrier wall.

Table 10 presents the results from the monitoring of the NAPL recovery and monitoring wells associated with the Cell G2 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 February, 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 January 2001, the monthly reports required by the Consent Decree and the Upper ½ Mile Reach Removal Action Work Plan were both submitted on February 9, 2001.

In addition, during February, GE submitted the following:

- Cell F3 preliminary survey.
- Post-excavation sample results for Cell G3 isolation layer monitoring location.
- Cell G3 additional excavation survey.

6.0 Photo documentation of activities performed: See attached Figure 1

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

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

- Complete restoring bank areas in Cell G3.
- Complete installation of NAPL recovery well and 2 monitoring wells in Cell G3.
- Complete installation of third Cell G2 monitoring well.
- Begin remedial activities in Cell F-3 (south side of the river) after diverting the river flow to the north side.
- Complete installation of the cutoff sheetpile for Cell H-1 (south side of river).
- Maintain temporary stockpiles of material in Buildings 33, 33X, and 65 (TSCA and non-TSCA).
- Continue monitoring coal-tar DNAPL recovery well in former Cell C.
- Continue observing the three monitoring wells associated with the Cell G1 source control barrier and submit required report.

- Continue monitoring coal-tar NAPL recovery and monitoring wells associated with the Cell G2 source control sheetpile wall.
- Initiate monitoring of the coal-tar DNAPL recovery well and monitoring wells (following installation) associated with the Cell G3 source control sheetpile wall.
- Conduct air and water column monitoring.

8.0 Attachments to this report:

- Table 1 - Analytical results for DNAPL oil collected from Cell G-3.
- Table 2 – Cell G2 drilling equipment wipe sample results.
- Table 3 - Analytical results for small drum found in Cell G-3.
- Table 4A – Water column monitoring TSS results.
- Table 4B – Water column monitoring PCB results.
- Table 5 – Particulate air monitoring results.
- Tables 6 – PCB air monitoring results.
- Table 7 – Cell G3 sediment PCB analytical results.
- Table 8 - Monitoring results from the DNAPL recovery well in former Cell C/D.
- Table 9 - Monitoring results from the NAPL recovery and monitoring wells in Cell G1.
- Table 10 - Monitoring results from the coal-tar NAPL recovery and monitoring wells in Cell G2.
- 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 OIL SAMPLING
DATA RECEIVED DURING FEBRUARY 2001

(Results are presented in parts per million, ppm)

Parameter:	Sample ID:	HR-G3-OIL-013101-1
Date Collected:		01/31/01
Volatile Organics		
Acetone		1.2 JB
Chlorobenzene		50
Ethylbenzene		59
m&p-Xylene		20
o-Xylene		18
PCBs		
Aroclor-1254		2.2 AF
Total PCBs		2.2
Semivolatile Organics		
2-Methylnaphthalene		7300
Acenaphthene		8600
Anthracene		3200
Benzo(a)anthracene		1800
Benzo(a)pyrene		1400
Benzo(b)fluoranthene		1100
Benzo(g,h,i)perylene		585 J
Benzo(k)fluoranthene		350 J
Chrysene		1400
Dibenzofuran		304 J
Fluoranthene		4500
Fluorene		3800
Indeno(1,2,3-cd)pyrene		525 J
Naphthalene		11000
Phenanthrene		15000
Pyrene		6900

Notes:

1. Sample was collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of PCBs, volatiles and semivolatiles.
2. ND - Analyte was not detected. The value in parentheses is the associated detection limit.
3. J - Indicates an estimated value less than the practical quantitation limit (PQL).
4. Only detected constituents are summarized.
5. AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
6. B - Analyte was also detected in the associated method blank.

TABLE 2

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
CELL G2 BBL DRILLING EQUIPMENT WIPE SAMPLING
WIPE SAMPLE DATA RECEIVED DURING FEBRUARY 2001

(Results are presented in $\mu\text{g}/100\text{cm}^2$)

Sample ID	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248, -1254, -1260	Total PCBs
BBL-ADH-W10	2/19/2001	ND(1.0)	ND(1.0)
BBL-ARF-W9	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W1	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W2	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W3	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W4	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W5	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W6	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W7	2/19/2001	ND(1.0)	ND(1.0)
BBL-AUGER-W8	2/19/2001	ND(1.0)	ND(1.0)
BBL-CUTBIT-W11	2/19/2001	ND(1.0)	ND(1.0)

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to CT&E Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The value in parentheses is the associated detection limit.

TABLE 3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
RECOVERED DRUM #45782 SAMPLING
DATA RECEIVED DURING FEBRUARY 2001

(Results are presented in parts per million, ppm)

Sample ID:	HR-45782-1
Date Collected:	02/13/01
Volatile Organics	
Acetone	7.7
m&p-Xylene	2.3
o-Xylene	0.98 J
Toluene	44
Trichloroethene	2.0
PCBs	
Aroclor-1260	74
Total PCBs	74
Semivolatile Organics	
None Detected	--
Inorganics	
Barium	0.410
Lead	3.20

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. J - Indicates an estimated value less than the practical quantitation limit (PQL).
3. Only detected constituents are summarized.

TABLE 4A

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

FEBRUARY 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 ¹⁴ (cfs)	Turbidity (ntu) ¹¹			Sample ID	Total PCB Concentration ¹² (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	2/1/2001	---	---	78	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/1/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/2/2001	---	---	59	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/2/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/5/2001	---	---	31	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/5/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/6/2001	---	---	51	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/6/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/7/2001	---	---	60	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/7/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/8/2001	---	---	56	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/8/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/9/2001	---	---	66	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/9/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/12/2001	---	---	107	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/12/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/13/2001	---	---	94	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/13/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/14/2001	---	---	75	NS	NS	NS	HR-2-14-01-U1	ND(0.0250)	ND(0.0250)	1.73
Downstream of Lyman St. Bridge	2/14/2001	---	---		NS	NS	NS	HR-2-14-01-D1	ND(0.0250)	ND(0.0250)	1.30
Upstream of Newell St. Bridge	2/15/2001	---	---	135	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/15/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/16/2001	---	---	118	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/16/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/19/2001	---	---	71	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/19/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/20/2001	---	---	72	NS	NS	NS	---	---	---	---
Downstream of Lyman St. Bridge	2/20/2001	---	---		NS	NS	NS	---	---	---	---
Upstream of Newell St. Bridge	2/21/2001	1.9	1	74	3	3	3	---	---	---	---
Downstream of Lyman St. Bridge	2/21/2001	3.0	1		3	3	3	---	---	---	---

TABLE 4A

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

FEBRUARY 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 ¹⁴ (cfs)	Turbidity (ntu) ¹¹			Sample ID	Total PCB Concentration ¹² (ug/l)	Filtered PCB Concentration (ug/l)	TSS (mg/l)
					High	Low	Daily Composite				
Upstream of Newell St. Bridge	2/22/2001	2.0	0	66	4	3	3	---	---	---	---
Downstream of Lyman St. Bridge	2/22/2001	3.0	0		4	3	3	---	---	---	---
Upstream of Newell St. Bridge	2/23/2001	1.8	0	68	4	3	3	---	---	---	---
Downstream of Lyman St. Bridge	2/23/2001	2.9	0		3	3	3	---	---	---	---
Upstream of Newell St. Bridge	2/26/2001	2.0	2	87	6	5	5	---	---	---	---
Downstream of Lyman St. Bridge	2/26/2001	3.0	2		7	5	5	---	---	---	---
Upstream of Newell St. Bridge	2/27/2001	2.0	1	78	7	4	6	---	---	---	---
Downstream of Lyman St. Bridge	2/27/2001	3.0	1		7	4	6	---	---	---	---
Upstream of Newell St. Bridge	2/28/2001	1.9	0	68	4	2	4	---	---	---	---
Downstream of Lyman St. Bridge	2/28/2001	2.8	0		3	2	3	---	---	---	---

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. ug/l - micrograms per liter
10. mg/l - milligrams per liter
11. Turbidity Action Level = Turbidity downstream ≤ Turbidity upstream + 50 ntu
12. PCB Action Level = PCBs downstream ≤ PCBs upstream + 5 ug/l
13. NS - Not sampled due to frozen river conditions or high flow.
14. 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 4B

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

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

(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, 1232, 1242, 1248, 1254, & 1260	Total PCBs	TSS
HR-1-31-01-D1	Downstream of Lyman St. Bridge	1/31/2001	ND(0.0000250)	ND(0.0000250)	3.23
HR-1-31-01-U1	Upstream of Newell St. Bridge	1/31/2001	ND(0.0000250)	ND(0.0000250)	4.15
HR-1-31-01-D1 (FILTERED)	Downstream of Lyman St. Bridge	1/31/2001	ND(0.0000250)	ND(0.0000250)	---
HR-1-31-01-U1 (FILTERED)	Upstream of Newell St. Bridge	1/31/2001	ND(0.0000250)	ND(0.0000250)	---
HR-2-14-01-D1	Downstream of Lyman St. Bridge	2/14/2001	ND(0.0000250)	ND(0.0000250)	1.30
HR-2-14-01-U1	Upstream of Newell St. Bridge	2/14/2001	ND(0.0000250)	ND(0.0000250)	1.73
HR-2-14-01-D1 (FILTERED)	Downstream of Lyman St. Bridge	2/14/2001	ND(0.0000250)	ND(0.0000250)	---
HR-2-14-01-U1 (FILTERED)	Upstream of Newell St. Bridge	2/14/2001	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.

TABLE 5

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

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

Date	Sampler Location	Average Site Concentration (mg/m ³)	BM-1 (mg/m ³)	Average Period (Hours:Min)	Predominant Wind Direction
2/1/2001	AM-4 (south side of river)	0.012	0.013	10:15	WNW
2/2/2001	AM-4 (south side of river)	0.007	0.013	6:30 ¹	SSW
2/5/01 ²	AM-4 (south side of river)	NA	NA	NA	NA
2/6/2001	AM-4 (south side of river)	0.013	0.009	7:45 ¹	W
2/7/2001	AM-4 (south side of river)	0.007	0.002	9:30	WNW
2/8/01 ²	AM-4 (south side of river)	NA	NA	NA	NA
2/9/01 ²	AM-4 (south side of river)	NA	NA	NA	NA
2/12/2001	AM-4 (south side of river)	0.011	0.006	9:45	SSW
2/13/2001	AM-4 (south side of river)	0.022	0.014	9:30	WNW
2/14/01 ²	AM-4 (south side of river)	NA	NA	NA	NA
2/15/2001	AM-4 (south side of river)	0.007	0.005	8:45	N, NNW
2/16/2001	AM-4 (south side of river)	0.015	0.014	3:30 ³	SSW, SW
2/19/2001	AM-4 (south side of river)	0.013	0.006	9:30	SSW
2/20/2001	AM-4 (south side of river)	0.017	0.019	9:45	SW, SSW
2/21/2001	AM-4 (south side of river)	0.005	0.002	9:30	WNW
2/22/2001	AM-4 (south side of river)	0.010	0.002	9:45	W
2/23/01 ²	AM-4 (south side of river)	NA	NA	NA	NA
2/26/2001	AM-4 (south side of river)	0.009	0.003	10:15	WNW
2/27/2001	AM-4 (south side of river)	0.024	0.014	9:30	W, WNW
2/28/2001	AM-4 (south side of river)	0.012	0.002	10:00	WNW
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 period was shortened due to precipitation/threat of precipitation.

² Sampling was not performed due to precipitation/threat of precipitation.

³ Sampling period was shortened due to instrument failure (dead battery).

TABLE 6

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
AMBIENT AIR PCB DATA RECEIVED DURING FEBRUARY 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
02/05 - 02/06/01	0.0015	0.0004	0.0003	0.0004	0.0003	0.0004
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 7

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

HOUSATONIC RIVER - UPPER 1/2 MILE REACH
CELL G3 SEDIMENT SAMPLING
PCB SAMPLE DATA RECEIVED DURING FEBRUARY 2001

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

Sample ID	Depth (Feet)	Date Collected	Aroclor 1016, 1221, 1232, & 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
HR-G3-SED-CAP-1	0 - 0.25	2/22/2001	ND(11.3)	196 PE	252 AF	71.2 AG	519

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. 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.
4. AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
5. AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

TABLE 8

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL C/D DNAPL MONITORING RESULTS - FEBRUARY 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	2/15/2001	6.22	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 9

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL G-1 MONITORING RESULTS - FEBRUARY 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	2/5/2001	982.42	10.47	---	20.36	0.00	971.95	0.00
HR-G1-MW-1	2/12/2001	982.42	9.86	---	20.35	0.00	972.56	0.00
HR-G1-MW-1	2/19/2001	982.42	10.24	---	20.35	0.00	972.18	0.00
HR-G1-MW-1	2/26/2001	982.42	10.26	---	20.35	0.00	972.16	0.00
HR-G1-MW-2	2/5/2001	980.23	8.21	---	28.52	0.00	972.02	0.00
HR-G1-MW-2	2/12/2001	980.23	7.76	---	28.52	0.00	972.47	0.00
HR-G1-MW-2	2/19/2001	980.23	8.01	---	28.51	0.00	972.22	0.00
HR-G1-MW-2	2/26/2001	980.23	8.10	---	28.51	0.00	972.13	0.00
HR-G1-MW-3	2/5/2001	980.25	8.50	---	17.97	0.00	971.75	0.00
HR-G1-MW-3	2/12/2001	980.25	7.77	---	17.97	0.00	972.48	0.00
HR-G1-MW-3	2/19/2001	980.25	8.23	---	17.96	0.00	972.02	0.00
HR-G1-MW-3	2/26/2001	980.25	8.21	---	17.94	0.00	972.04	0.00

Notes:

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

TABLE 10

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

UPPER 1/2-MILE REACH OF HOUSATONIC RIVER

CELL G-2 MONITORING RESULTS - FEBRUARY 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	02/26/01	982.60	10.85	---	18.29	0.00	971.75	0.00
HR-G2-MW-2	02/26/01	981.39	10.03	---	17.69	0.00	971.36	0.00
HR-G2-RW-1	2/5/2001	976.88	7.09	---	18.71	0.00	969.79	0.00
HR-G2-RW-1	2/12/2001	976.88	6.29	---	18.70	0.00	970.59	0.00
HR-G2-RW-1	2/19/2001	976.88	6.79	---	18.73	0.00	970.09	0.00
HR-G2-RW-1	2/26/2001	976.88	6.80	---	18.73	0.00	970.08	0.00

Notes:

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

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	Samples collected as part of off-site residential fill program				
			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							
			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							
	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	3000	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							
			12G	11/30/2000	20	12/6/2000	10/20/2000	1							
	TOC	500	12A	1/3/2000	Letter	1/6/2000	12/28/1999	1							
			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							
			12F	9/29/2000	17	10/4/2000	9/26/2000	1							
			12G	11/30/2000	20	12/6/2000	10/20/2000	1							
	PCBs	500	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							
			NA	NA	16A	10/4/2000	9/26/2000	3							
			NA	NA	18A	10/5/2000	9/28/2000	2							
	VOCs	2000	NA	NA	20A	1/9/2001	12/5/2000	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	18A	10/5/2000	9/28/2000	2							
			NA	NA	10	1/14/2000	1/5/2000	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	4000	1742	
				15B	10/4/2000	19	10/11/2000	9/28/2000				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

Subj: East Branch Housatonic at Coltsville, MA
 Date: 09/01/2000 3:35:29 PM Eastern Daylight Time
 From: tshepard@usgs.gov (Thomas Shepard)
 To: grabasco@aol.com
 CC: tshepard@usgs.gov (Thomas Shepard)

Penny, here are the flow values. Let me know if you need any other days.

tom

TIME SERIES RECORD

YEAR	MONTH	DAY	MINUTE	U01197000.00060
2000	8	16	60	205.9953
2000	8	16	120	197.0984
2000	8	16	180	191.2964
2000	8	16	240	191.2964
2000	8	16	300	188.434
2000	8	16	360	185.5972
2000	8	16	420	215.1266
2000	8	16	480	200.0381
2000	8	16	540	200.0381
2000	8	16	600	205.9953
2000	8	16	660	205.9953
2000	8	16	720	209.013
2000	8	16	780	209.013
2000	8	16	840	205.9953
2000	8	16	900	209.013
2000	8	16	960	212.0567
2000	8	16	1020	205.9953
2000	8	16	1080	209.013
2000	8	16	1140	205.9953
2000	8	16	1200	205.9953
2000	8	16	1260	203.0037
2000	8	16	1320	200.0381
2000	8	16	1380	200.0381
2000	8	16	1440	197.0984
2000	8	17	60	197.0984
2000	8	17	120	200.0381
2000	8	17	180	197.0984
2000	8	17	240	194.1845
2000	8	17	300	194.1845
2000	8	17	360	191.2964
2000	8	17	420	191.2964
2000	8	17	480	185.5972
2000	8	17	540	185.5972
2000	8	17	600	180
2000	8	17	660	180
2000	8	17	720	177.3345
2000	8	17	780	180
2000	8	17	840	180
2000	8	17	900	169.4756

Flow cfs.

→ Totals as of 5:00pm. Precipitation 0.31 inches

2000	8	17	960	172.0723
2000	8	17	1020	164.3509
2000	8	17	1080	164.3509
2000	8	17	1140	159.317
2000	8	17	1200	159.317
2000	8	17	1260	156.8341
2000	8	17	1320	154.3738
2000	8	17	1380	151.936
2000	8	17	1440	154.3738
2000	8	18	60	151.936
2000	8	18	120	151.936
2000	8	18	180	147.1278
2000	8	18	240	149.5207
2000	8	18	300	149.5207
2000	8	18	360	142.409
2000	8	18	420	144.7572
2000	8	18	480	140.0829
2000	8	18	540	144.7572
2000	8	18	600	137.7791
2000	8	18	660	140.0829
2000	8	18	720	142.409
2000	8	18	780	135.4973
2000	8	18	840	135.4973
2000	8	18	900	135.4973
2000	8	18	960	133.2376
2000	8	18	1020	128.733
2000	8	18	1080	128.733
2000	8	18	1140	126.4893
2000	8	18	1200	128.733
2000	8	18	1260	128.733
2000	8	18	1320	131
2000	8	18	1380	126.4893
2000	8	18	1440	126.4893

Totals as of 5:00pm. Precipitation 0 inches

Totals as of 5:00pm. Precipitation 0 inches

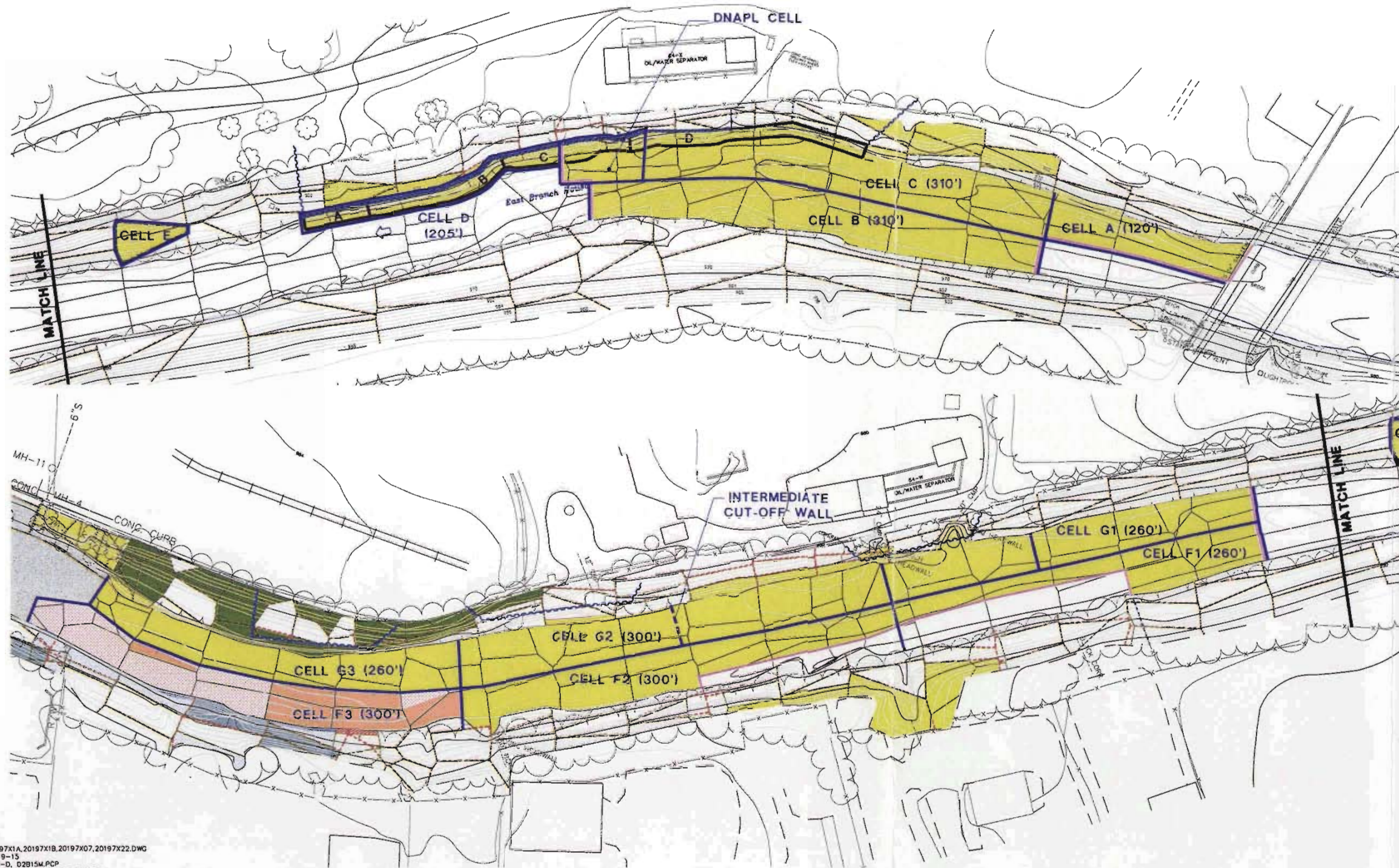
Headers

Return-Path: <tshepard@usgs.gov>
 Received: from rly-yd05.mx.aol.com (rly-yd05.mail.aol.com [172.18.150.5]) by air-yd04.mail.aol.com (v75_b3.11) with ESMTP; Fri, 01 Sep 2000 15:35:29 -0400
 Received: from gscamrnh01.wr.usgs.gov (gscamrnh01.wr.usgs.gov [130.118.4.115]) by rly-yd05.mx.aol.com (v75_b3.9) with ESMTP; Fri, 01 Sep 2000 15:35:01 -0400
 Received: from usgs.gov ([130.11.69.245])
 by gsvaresh01.er.usgs.gov (Lotus Domino Release 5.0.3)
 with ESMTP id 2000090113481235:20076 ;
 Fri, 1 Sep 2000 13:48:12 -0400

Sender: tshepard
 Message-ID: <39AFEBDC.E3EAAF09@usgs.gov>
 Date: Fri, 01 Sep 2000 13:48:12 -0400
 From: Thomas Shepard <tshepard@usgs.gov>
 X-Mailer: Mozilla 4.72 [en] (X11; I; SunOS 5.6 sun4u)
 X-Accept-Language: en
 MIME-Version: 1.0
 To: grabasco@aol.com
 CC: Thomas Shepard <tshepard@usgs.gov>
 Subject: East Branch Housatonic at Coltsville, MA
 X-MIMETrack: Itemize by SMTP Server on gsvaresh01/SERVER/USGS/DOI(Release 5.0.3 [March

Exhibit A - Upper 1/2 Mile Reach Removal Action

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

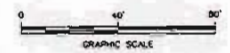


LEGEND:

- 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,20197X1B,20197X07,20197X22.DWG
LMAN: 9-15
P: 15M-D, D2815M.PCP
3/8/01 S'YR-S4-GMS JER KMD PGL
20197030/CELLG2/20197G11.DWG

**½-MILE RIVER REMOVAL ACTION
MONTHLY PROGRESS REPORT
FEBRUARY 2001
FIGURE 1: PHOTO DOCUMENTATION**

PHOTO NO. 1

LOCATION: Cell G3 bank
(looking upstream)

DESCRIPTION: Waterloo source control
barrier wall

DATE: February 20, 2001



PHOTO NO. 2

LOCATION: Cell G3 river

DESCRIPTION: Additional sediment
removal to peat layer

DATE: February 21, 2001



PHOTO NO. 3

LOCATION: Cell G3
(looking downstream)

DESCRIPTION: Restored river bed

DATE: March 1, 2001

