



GE  
159 Plastics Avenue  
Pittsfield, MA 01201  
USA

*Transmitted via Overnight Courier*

September 8, 2006

Mr. Dean Tagliaferro  
U.S. Environmental Protection Agency  
Region I – New England  
10 Lyman Street, Suite 2  
Pittsfield, MA 01201

Ms. Susan Steenstrup  
Bureau of Waste Site Cleanup  
Department of Environmental Protection  
436 Dwight Street  
Springfield, MA 01103

**Re: GE-Pittsfield/Housatonic River Site  
Monthly Status Report Pursuant to Consent Decree for August 2006 (GECD900)**

Dear Mr. Tagliaferro and Ms. Steenstrup:

Enclosed are copies of General Electric's (GE's) monthly progress report for August 2006 activities conducted by GE at the GE-Pittsfield/Housatonic River Site. This monthly report is submitted pursuant to Paragraph 67 of the Consent Decree (CD) for this Site, which was entered by the U.S. District Court on October 27, 2000.

The enclosed monthly report includes not only the activities conducted by GE under the CD, but also other activities conducted by GE at the GE-Pittsfield/Housatonic River Site (as defined in the CD). The report is formatted to apply to the various areas of the Site as defined in the CD, and to provide for each area, the information specified in Paragraph 67 of the CD. The activities conducted specifically pursuant to or in connection with the CD are marked with an asterisk. GE is submitting a separate monthly report to the Massachusetts Department of Environmental Protection (MDEP), with a copy to the United States Environmental Protection Agency (EPA), describing the activities conducted by GE at properties outside the CD Site pursuant to GE's November 2000 Administrative Consent Order from MDEP.

The enclosed monthly report includes, where applicable, tables that list the samples collected during the subject month, summarize the analytical results received during that month from sampling or other testing activities, and summarize other groundwater monitoring and oil recovery information obtained during that month. Also, enclosed for each of you (and for Weston) is a CD-ROM that contains these same tables of the analytical data and monitoring information in electronic form.

Please call Andrew Silfer or me if you have any questions.

Sincerely,

Richard W. Gates  
Remediation Project Manager

Enclosure

V:\GE\_Pittsfield\_General\Reports and Presentations\Monthly Reports\2006\8-06 CD Monthly\Letter.doc

cc: Robert Cianciarulo, EPA (cover letter only)  
Tim Conway, EPA (cover letter only)  
Sharon Hayes, EPA  
William Lovely, EPA (Items 7, 8, 9, 10, 11, 12, 16/17, 22, 23, and 25 only)  
Rose Howell, EPA (cover letter and CD-ROM of report)  
Holly Inglis, EPA (hard copy and CD-ROM of report)  
Susan Svirsky, EPA (Items 7, 15, and 20 only)  
K.C. Mitkevicius, USACE (CD-ROM of report)  
Thomas Angus, MDEP (cover letter only)  
Jane Rothchild, MDEP (cover letter only)  
Anna Symington, MDEP (cover letter only)  
Nancy E. Harper, MA AG  
Susan Peterson, CT DEP  
Field Supervisor, US FWS, DOI  
Kenneth Finkelstein, Ph.D., NOAA (Items 13, 14, and 15 only)  
Dale Young, MA EOE  
Mayor James Ruberto, City of Pittsfield  
Thomas Hickey, Director, Pittsfield Economic Development Authority  
Linda Palmieri, Weston  
Richard Nasman, P.E., Berkshire Gas (CD-ROM of report)  
Michael Carroll GE (CD-ROM of report)  
Andrew Silfer, GE (cover letter only)  
Rod McLaren, GE (CD-ROM of report)  
James Nuss, BBL  
James Bieke, Goodwin Procter  
Jim Rhea, QEA (narrative only)  
Teresa Bowers, Gradient  
Public Information Repositories (1 hard copy, 5 copies of CD-ROM)  
GE Internal Repository (1 hard copy)

*(w/o separate CD-ROM, except where noted)*

***August 2006***

**MONTHLY STATUS REPORT  
PURSUANT TO CONSENT DECREE  
FOR  
GE-PITTSFIELD/HOUSATONIC RIVER  
SITE**

**GENERAL ELECTRIC COMPANY**



**PITTSFIELD, MASSACHUSETTS**

## **Background**

The General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and other governmental entities have entered into a Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site, which was entered by the U.S. Court on October 27, 2000. In accordance with Paragraph 67 of the CD, GE is submitting this monthly report, prepared on GE's behalf by Blasland, Bouck & Lee, Inc. (BBL), which summarizes the status of activities conducted by GE at the GE-Pittsfield/Housatonic River Site ("Site") (as defined in the CD).

This report covers activities in the areas listed below (as defined in the CD and/or the accompanying Statement of Work for Removal Actions Outside the River [SOW]). Only those areas that have had work activities for the month subject to reporting are included. The specific activities conducted pursuant to or in connection with the CD are noted with an asterisk.

### **General Activities (GECD900)**

#### **GE Plant Area (non-groundwater)**

1. 20s, 30s, 40s Complexes (GECD120)
2. East Street Area 2 – South (GECD150)
3. East Street Area 2 – North (GECD140)
4. East Street Area 1 – North (GECD130)
5. Hill 78 and Building 71 Consolidation Areas (GECD210/220)
6. Hill 78 Area – Remainder (GECD160)
7. Unkamet Brook Area (GECD170)

#### **Former Oxbow Areas (non-groundwater)**

8. Former Oxbow Areas A & C (GECD410)
9. Lyman Street Area (GECD430)
10. Newell Street Area I (GECD440)
11. Newell Street Area II (GECD450)
12. Former Oxbow Areas J & K (GECD420)

#### **Housatonic River**

13. Upper ½-Mile Reach (GECD800)
14. 1½-Mile Reach (only for activities, if any, conducted by GE) (GECD820)
15. Rest of the River (GECD850)

#### **Housatonic River Floodplain**

16. Current Residential Properties Adjacent to 1½-Mile Reach (Actual/Potential Lawns) (GECD710)
17. Non-Residential Properties Adjacent to 1½-Mile Reach (excluding banks) (GECD720)
18. Current Residential Properties Downstream of Confluence (Actual/Potential Lawns) (GECD730)

#### **Other Areas**

19. Allendale School Property (GECD500)
20. Silver Lake Area (GECD600)



**Groundwater Management Areas (GMAs)**

21. Plant Site 1 (GECD310)
22. Former Oxbows J & K (GECD320)
23. Plant Site 2 (GECD330)
24. Plant Site 3 (GECD340)
25. Former Oxbows A&C (GECD350)

**GENERAL ACTIVITIES  
GE-PITTSFIELD/HOUSATONIC RIVER SITE  
(GECD900)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

Continued GE-EPA electronic data exchanges for the Housatonic River Watershed and Areas Outside the River.\*

**b. Sampling/Test Results Received**

- Sample results were received for routine sampling conducted pursuant to GE's NPDES Permit for the GE facility. Sampling records and results are provided in Attachment A to this report.
- NPDES Discharge Monitoring Reports (DMRs) for the period of July 1 through July 31, 2006, are provided in Attachment B to this report.
- GE received a report from Columbia Analytical Services, Inc. (CAS) titled *NPDES Biomonitoring Report for August 2006*, which included analytical results for samples collected for NPDES-related whole effluent toxicity testing, as well as an attached report from Aquatec Biological Sciences providing the results of the whole effluent toxicity testing performed in August 2006. A copy of this document is provided in Attachment C.
- GE received a report from CAS titled *NPDES Chronic Biomonitoring Report for August 2006*, which included analytical results for samples collected for NPDES-related chronic whole effluent testing, as well as an attached report from Aquatec Biological Sciences providing the results of the chronic whole effluent toxicity testing performed in August 2006. A copy of that report is provided in Attachment D.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue NPDES sampling and monitoring activities.
- Attend public and Citizens Coordinating Council (CCC) meetings, as appropriate.
- Submit revised *Project Operations Plan* (POP) following receipt of EPA comments on February 2006 draft.\*
- Submit revised *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) following receipt of EPA comments on February 2006 draft.\*

**GENERAL ACTIVITIES**  
**(cont'd)**  
**GE-PITTSFIELD/HOUSATONIC RIVER SITE**  
**(GECD900)**  
**AUGUST 2006**

e. **General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

f. **Proposed/Approved Work Plan Modifications**

None

**ITEM 1  
PLANT AREA  
20s, 30s, 40s COMPLEXES  
(GECD120)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

- Completed processing and stockpiling of crushed materials, and completed demobilization activities associated with 40s Complex demolition activities.
- Conducted air monitoring for particulates in connection with demolition activities in the 40s Complex, as identified in Table 1-1.
- Conducted wipe sampling of equipment associated with the 40s Complex demolition activities, as identified in Table 1-1.
- Initiated pre-demolition removal activities (e.g., asbestos abatement, equipment/liquids removal) at Building 32 Substation.
- Conducted pond silt sampling at Pittsfield Sand & Gravel, as identified in Table 1-1.
- Conducted building material characterization sampling at the Building 32 Substation in support of future demolition activities, as identified in Table 1-1.
- Conducted sampling of paint from the exterior of the T31-4 transformer, as identified in Table 1-1.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

Submitted letter to EPA describing GE's plans for demolition of the Building 32 Substation and disposition of building materials at the Hill 78 On-Plant Consolidation Area (OPCA), including results of sampling above-grade materials at the Building 32 Substation (August 10, 2006).\*

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Initiate installation of erosion control measures (riprap, topsoil, seed, etc.) at the crushed material stockpile and the material wedge along Kellogg Street and Woodlawn Avenue.
- Submit letter and figure to EPA documenting final as-built subgrade elevations of the temporary crushed material stockpile at the 40s Complex; and following EPA approval, install vegetative cover over crushed material stockpile.
- In Fall 2006, conduct annual inspections of 20s and 30s Complexes to assess compliance with Grants of Environmental Restrictions and Easements (EREs).\*

**ITEM 1  
(cont'd)  
PLANT AREA  
20s, 30s, 40s COMPLEXES  
(GEC120)  
AUGUST 2006**

e. **General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

f. **Proposed/Approved Work Plan Modifications**

Received EPA approval of GE's plans for consolidation of certain building materials from the Building 32 Substation at the Hill 78 OPCA, as described in GE's August 10, 2006 submission (described above) (August 24, 2006).\*

**TABLE 1-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**20s, 30s, 40s COMPLEX  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Building 32 Substation Sampling	SUB32-CONC-NW-1	8/30/06	Concrete	SGS	PCB	
Building 32 Substation Sampling	SUB32-CONC-SE-1	8/30/06	Concrete	SGS	PCB	
Building 32 Substation Sampling	SUB32-TRANS-OIL-1	8/30/06	Oil	SGS	PCB	
Building 32 Substation Sampling	SUB32-TRANS-PAINT-1	8/30/06	Paint	SGS	TCLP-LEAD	
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-BUCKET-W1	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-BUCKET-W2	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-BUCKET-W3	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-CLAM-W1	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-CLAM-W2	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-CLAM-W3	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-SBUCKET-W1	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-SBUCKET-W2	8/14/06	Wipe	SGS	PCB	8/17/06
Jackson Demolition 40's Complex Equipment Sampling	JACKSON-SBUCKET-W3	8/14/06	Wipe	SGS	PCB	8/17/06
Pittsfield Sand & Gravel Pond Silt Sampling	PSG-PONDSILT-C1	8/14/06	Soil	SGS	PCB, VOC, SVOC, Metals	
Transformer T31-4 Sampling	T31-4-Paint-1	8/14/06	Solid	SGS	TCLP-Lead	
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06

**TABLE 1-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**20s, 30s, 40s COMPLEX  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06

**TABLE 1-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**20s, 30s, 40s COMPLEX  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06



**TABLE 1-2  
PCB DATA RECEIVED DURING AUGUST 2006**

**JACKSON DEMOLITION 40'S COMPLEX EQUIPMENT SAMPLING  
20s, 30s, 40s COMPLEX  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in  $\mu\text{g}/100\text{cm}^2$ )**

Sample ID	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Jackson-Bucket-W1	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-Bucket-W2	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-Bucket-W3	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-Clam-W1	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-Clam-W2	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-Clam-W3	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-SBucket-W1	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-SBucket-W2	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Jackson-SBucket-W3	8/14/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

**Notes:**

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**TABLE 1-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2006**

**40s COMPLEX DEMOLITION ACTIVITIES  
 20s, 30s, 40s COMPLEX  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

<b>Sampling Date<sup>2</sup></b>	<b>Sampler Location</b>	<b>Average Site Concentration (mg/m<sup>3</sup>)</b>	<b>Background Site Concentration (mg/m<sup>3</sup>)</b>	<b>Average Period (Hours:Min)</b>	<b>Predominant Wind Direction</b>
08/01/06	W3 - West of 40s Complex	0.055*	0.048*	10:15	WSW
	MC3 - Near Bldg. 16 & 19	0.086*		10:30	
	M2 - South of Bldg. 5	0.064*		10:30	
	S2 - Woodlawn Avenue	0.071*		10:30	
08/02/06	W3 - West of 40s Complex	0.054*	0.049*	10:30	WNW
	MC3 - Near Bldg. 16 & 19	0.087*		10:15	
	M2 - South of Bldg. 5	0.062*		10:30	
	S2 - Woodlawn Avenue	0.072*		10:30	
08/03/06	W3 - West of 40s Complex	0.035*	0.034*	10:45	WNW
	MC3 - Near Bldg. 16 & 19	0.061*		10:45	
	M2 - South of Bldg. 5	0.042*		10:45	
	S2 - Woodlawn Avenue	0.047*		10:45	
08/04/06	W3 - West of 40s Complex	0.010*	0.008*	11:30	NNW
	MC3 - Near Bldg. 16 & 19	0.035*		11:00	
	M2 - South of Bldg. 5	0.011*		11:00	
	S2 - Woodlawn Avenue	0.012*		11:00	
08/07/06	W3 - West of 40s Complex	0.035*	0.024*	10:30	SSW
	MC3 - Near Bldg. 16 & 19	0.073*		10:30	
	M2 - South of Bldg. 5	0.045*		10:30	
	S2 - Woodlawn Avenue	0.078*		10:30	
08/08/06	W3 - West of 40s Complex	0.015*	0.010*	11:00	NNW
	MC3 - Near Bldg. 16 & 19	0.012*		11:15	
	M2 - South of Bldg. 5	0.015*		11:15	
	S2 - Woodlawn Avenue	0.017*		11:15	
08/09/06	W3 - West of 40s Complex	0.011*	0.006*	10:15	Calm
	MC3 - Near Bldg. 16 & 19	0.012*		5:45 <sup>3</sup>	
	M2 - South of Bldg. 5	0.010*		10:30	
	S2 - Woodlawn Avenue	0.010*		10:30	
08/10/06	W3 - West of 40s Complex	0.021*	0.012*	10:45	SSW
	MC3 - Near Bldg. 16 & 19	0.021*		10:30	
	M2 - South of Bldg. 5	0.021*		10:30	
	S2 - Woodlawn Avenue	0.023*		10:30	
08/11/06	W3 - West of 40s Complex	0.007*	0.004*	10:45	NNW
	MC3 - Near Bldg. 16 & 19	0.007*		10:45	
	M2 - South of Bldg. 5	0.006*		10:45	
	S2 - Woodlawn Avenue	0.005*		10:45	
08/14/06	W3 - West of 40s Complex	0.019*	0.011*	11:15	SSW
	MC3 - Near Bldg. 16 & 19	0.019*		11:00	
	M2 - South of Bldg. 5	0.017*		11:00	
	S2 - Woodlawn Avenue	0.019*		11:00	
08/15/06	W3 - West of 40s Complex	0.021*	0.007*	11:00	WSW
	MC3 - Near Bldg. 16 & 19	0.019*		10:45	
	M2 - South of Bldg. 5	0.021*		10:45	
	S2 - Woodlawn Avenue	0.018*		10:45	

**TABLE 1-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2006<sup>1</sup>**

**40s COMPLEX DEMOLITION ACTIVITIES  
 20s, 30s, 40s COMPLEX  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>2</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
08/16/06	W3 - West of 40s Complex	0.012*	0.006*	10:30	NNW
	MC3 - Near Bldg. 16 & 19	0.012*		10:15	
	M2 - South of Bldg. 5	0.010*		10:30	
	S2 - Woodlawn Avenue	0.012*		10:30	
08/17/06	W3 - West of 40s Complex	0.008*	0.005*	11:00	Calm
	MC3 - Near Bldg. 16 & 19	0.011*		11:00	
	M2 - South of Bldg. 5	0.012*		11:00	
	S2 - Woodlawn Avenue	0.009*		11:00	
08/18/06	W3 - West of 40s Complex	0.018*	0.005*	10:30	SSW
	MC3 - Near Bldg. 16 & 19	0.018*		10:15	
	M2 - South of Bldg. 5	0.015*		10:30	
	S2 - Woodlawn Avenue	0.017*		10:30	
Notification Level		0.120			

**Notes:**

\* Measured with a DR-2000 or DR-4000.

40s Complex demolition activities completed August 18, 2006.

Background monitoring station is located east of Building 9B, between 9B and New York Avenue.

Predominant wind direction determined using hourly wind direction data from the Pittsfield Municipal Airport Weather Station.

<sup>1</sup> Monitoring was performed only on days when site activities occurred.

<sup>2</sup> The particulate monitors obtain real-time data. The sampling data were obtained by BEC on the sampling date.

<sup>3</sup> Sampling period was shortened due to instrument malfunction.

**ITEM 2  
PLANT AREA  
EAST STREET AREA 2-SOUTH  
(GECD150)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

Conducted Liquid-Phase Carbon Absorption (LPCA) sampling at Building 64G, as identified in Table 2-1.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue routine process sampling at Buildings 64G and/or 64T.
- Submit to EPA and MDEP a revised draft ERE and survey plans for the City Recreational Area.\*
- In Fall 2006, conduct annual inspection of cover at City Recreational Area.\*

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 2-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**EAST STREET AREA 2 - SOUTH  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Building 64G LPCA Monitoring	G6-64G-07	7/18/06	Water	Accutest	PCB	8/3/06
Building 64G LPCA Monitoring	G6-64G-11	7/18/06	Water	Accutest	PCB	8/3/06
Building 64G LPCA Monitoring	G6-64G-15	7/18/06	Water	Accutest	PCB	8/3/06

**TABLE 2-2  
PCB DATA RECEIVED DURING AUGUST 2006**

**BUILDING 64G LPCA MONITORING  
EAST STREET AREA 2 - SOUTH  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Aroclor-1016</b>	<b>Aroclor-1221</b>	<b>Aroclor-1232</b>	<b>Aroclor-1242</b>	<b>Aroclor-1248</b>	<b>Aroclor-1254</b>	<b>Aroclor-1260</b>	<b>Total PCBs</b>
G6-64G-07	7/18/2006	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)
G6-64G-11	7/18/2006	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)
G6-64G-15	7/18/2006	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)	ND(0.000050)

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**ITEM 3  
PLANT AREA  
EAST STREET AREA 2-NORTH  
(GEC140)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

- Completed site restoration and general housekeeping activities at former Buildings 1, 2, 3, and 3B, and associated annexes (Buildings 1A and 100 Annex).
- Conducted drum sampling at Building 78 of oil drained from product lines below grade near the Buildings 1, 2 and 3 footprint, as identified in Table 3-1.
- Conducted wipe sampling of equipment used in association with Buildings 1, 2 and 3 demolition activities, as identified in Table 3-1.
- Collected and tankered approximately 30,000 gallons of water from Building 9 to Building 64G for treatment.
- Collected and tankered approximately 3,000 gallons of water from the Buildings 1, 2 and 3 demolition project to Building 64G for treatment.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

- Submitted Final Removal Design/Removal Action (RD/RA) Work Plan (August 25, 2006).\*
- Submitted letter to EPA confirming discussions related to an earlier preliminary verbal notification to EPA (made on August 25, 2006) regarding sampling of oil from two sections of pipe removed from an underground tunnel located adjacent to former Building 5 (August 28, 2006).

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue removal and investigation of piping located in the underground tunnel located adjacent to former Building 5, as outlined in the above-referenced August 28, 2006 letter to EPA.
- Schedule initiation of demolition activities associated with Buildings 7, 17, 17C and 19 following final EPA approval of demolition debris disposition.

**ITEM 3  
(cont'd)  
PLANT AREA  
EAST STREET AREA 2-NORTH  
(GECD140)  
AUGUST 2006**

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None



**TABLE 3-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**EAST STREET AREA 2 - NORTH  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Buildings 1, 2, & 3 Oil Drum Sampling	F1753-1	8/22/06	Oil	SGS	PCB	8/25/06
Buildings 1, 2, & 3 Oil Drum Sampling	F1754-1	8/22/06	Oil	SGS	PCB	8/25/06
Lenox Construction Buildings 1, 2, & 3 Utility Cut Equipment Sampling	LENOX-EXCAVATORBUCKET-W1	8/15/06	Wipe	SGS	PCB	8/17/06
Lenox Construction Buildings 1, 2, & 3 Utility Cut Equipment Sampling	LENOX-EXCAVATORBUCKET-W2	8/15/06	Wipe	SGS	PCB	8/17/06
Lenox Construction Buildings 1, 2, & 3 Utility Cut Equipment Sampling	LENOX-EXCAVATORBUCKET-W3	8/15/06	Wipe	SGS	PCB	8/17/06

**TABLE 3-2  
PCB DATA RECEIVED DURING AUGUST 2006**

**LENOX CONSTRUCTION BUILDINGS 1, 2, & 3 UTILITY CUT EQUIPMENT SAMPLING  
EAST STREET AREA 2 - NORTH  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in  $\mu\text{g}/100\text{cm}^2$ )**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Aroclor-1016</b>	<b>Aroclor-1221</b>	<b>Aroclor-1232</b>	<b>Aroclor-1242</b>	<b>Aroclor-1248</b>	<b>Aroclor-1254</b>	<b>Aroclor-1260</b>	<b>Total PCBs</b>
Lenox-ExcavatorBucket-W1	8/15/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Lenox-ExcavatorBucket-W2	8/15/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
Lenox-ExcavatorBucket-W3	8/15/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**TABLE 3-3  
PCB DATA RECEIVED DURING AUGUST 2006**

**BUILDINGS 1, 2, & 3 OIL DRUM SAMPLING  
EAST STREET AREA 2 - NORTH  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Aroclor-1016</b>	<b>Aroclor-1221</b>	<b>Aroclor-1232</b>	<b>Aroclor-1242</b>	<b>Aroclor-1248</b>	<b>Aroclor-1254</b>	<b>Aroclor-1260</b>	<b>Total PCBs</b>
F1753-1	8/22/2006	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	ND(100)	270	270
F1754-1	8/22/2006	ND(470)	ND(470)	ND(470)	ND(470)	ND(470)	ND(470)	760	760

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**ITEM 4  
PLANT AREA  
EAST STREET AREA 1-NORTH  
(GEC130)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

None

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

In Fall 2006, conduct annual determination of any change in ownership of properties with Conditional Solutions, and conduct annual inspection of those properties.\*

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**ITEM 5  
PLANT AREA  
HILL 78 & BUILDING 71 CONSOLIDATION AREAS  
(GECD210/220)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- Continued consolidation of excavated materials from Former Oxbow Areas A and C into the OPCAs.
- Initiated final grading of consolidated materials in Building 71 OPCA in preparation for final cover system.
- Consolidated at the OPCAs certain leachate material from Newell Street Area I.
- Conducted air monitoring for particulates and PCBs, as identified in Table 5-1.
- Continued transfer of leachate from Building 71 OPCA to Building 64G for treatment. The total amount transferred in August 2006 was 121,000 gallons (see Table 5-4).

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

Submitted an Addendum to the Phase II Final OPCA Cover Construction Plan that was submitted in May 2006 (August 25, 2006).

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Conduct semi-annual inspection of capped portion of Building 71 OPCA and submit report thereon.
- Complete consolidation of excavated materials from Former Oxbow Areas A and C into the OPCAs.
- Consolidate excavated materials from the Lyman Street Area into the Building 71 OPCA, if available.
- Continue Phase II final cover construction for Building 71 OPCA.

**ITEM 5  
(cont'd)  
PLANT AREA  
HILL 78 & BUILDING 71 CONSOLIDATION AREAS  
(GECD210/220)  
AUGUST 2006**

**d. Upcoming Scheduled and Anticipated Activities (next six weeks) (cont'd)**

- Prepare and submit plan to address the blockage within the storm sewer line located beneath the Hill 78 OPCA; and following EPA approval, mobilize Contractor to site to address blockage. (This matter is discussed further in Item 6.)

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

- Received EPA conditional approval of GE's May 5, 2006 plan titled *2006 Consolidation and Phase II Final Cover Construction* (August 1, 2006).
- Received EPA approval of GE's August 25, 2006 Addendum to Phase II Final OPCA Cover Construction Plan (August 29, 2006).

**TABLE 5-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	North of OPCAs	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/1/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/2/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/3/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/4/06	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/7/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/8/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/9/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06

**TABLE 5-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/10/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/11/06	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/14/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/15/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/16/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/17/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/18/06	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/21/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/21/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/21/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/21/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/21/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/21/06	Air	Berkshire Environmental	Particulate Matter	8/29/06



**TABLE 5-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	North of OPCAs	8/22/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/22/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/22/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/22/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/22/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/22/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/23/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/23/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/23/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/23/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/23/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/23/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/24/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/24/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/24/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/24/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/24/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/24/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/25/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/25/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/25/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/25/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/25/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/25/06	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/28/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/28/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/28/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/28/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/28/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/28/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/29/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/29/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/29/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/29/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/29/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/29/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/30/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/30/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/30/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/30/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/30/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/30/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	North of OPCAs	8/31/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/31/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/31/06	Air	Berkshire Environmental	Particulate Matter	9/1/06

**TABLE 5-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	Northwest of OPCAs	8/31/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	West of OPCAs	8/31/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/31/06	Air	Berkshire Environmental	Particulate Matter	9/1/06
PCB Ambient Air Sampling	Field Blank	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	Northwest of OPCAs	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	West of OPCAs	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	West of OPCAs colocated	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	North of OPCAs	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	Southeast of OPCAs	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	Pittsfield Generating (PGE)	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	Background East of Building 9B	7/24 - 7/25/06	Air	Berkshire Environmental	PCB	8/8/06
PCB Ambient Air Sampling	Field Blank	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Northwest of OPCAs	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	West of OPCAs	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	West of OPCAs colocated	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	North of OPCAs	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Southeast of OPCAs	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Pittsfield Generating (PGE)	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Background East of Building 9B	7/31 - 8/01/06	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Field Blank	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	Northwest of OPCAs	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	West of OPCAs	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	West of OPCAs colocated	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	North of OPCAs	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	Southeast of OPCAs	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	Pittsfield Generating (PGE)	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	Background East of Building 9B	8/03 - 8/04/06	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	Field Blank	8/08 - 8/09/06	Air	Berkshire Environmental	PCB	8/15/06
PCB Ambient Air Sampling	Northwest of OPCAs	8/08 - 8/09/06	Air	Berkshire Environmental	PCB	8/15/06
PCB Ambient Air Sampling	West of OPCAs	8/08 - 8/09/06	Air	Berkshire Environmental	PCB	8/15/06
PCB Ambient Air Sampling	West of OPCAs colocated	8/08 - 8/09/06	Air	Berkshire Environmental	PCB	8/15/06
PCB Ambient Air Sampling	Field Blank	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	Northwest of OPCAs	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	West of OPCAs	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	West of OPCAs colocated	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	North of OPCAs	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	Southeast of OPCAs	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	Pittsfield Generating (PGE)	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	Background East of Building 9B	8/10 - 8/11/06	Air	Berkshire Environmental	PCB	8/17/06
PCB Ambient Air Sampling	Field Blank	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06
PCB Ambient Air Sampling	Northwest of OPCAs	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06
PCB Ambient Air Sampling	West of OPCAs colocated	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06
PCB Ambient Air Sampling	North of OPCAs	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06
PCB Ambient Air Sampling	Southeast of OPCAs	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06
PCB Ambient Air Sampling	Pittsfield Generating (PGE)	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06

**TABLE 5-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
PCB Ambient Air Sampling	Background East of Building 9B	8/14 - 8/15/06	Air	Berkshire Environmental	PCB	8/21/06

**TABLE 5-2**  
**SUMMARY OF 2006 PCB AMBIENT AIR SAMPLING RESULTS**  
**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**  
(all results are ug/m<sup>3</sup>)

Date	Northwest of OPCAs	Northwest of OPCAs collocated	West of OPCAs	West of OPCAs collocated	North of OPCAs	Southeast of OPCAs	Pittsfield Generating (PGE)	Background Sample Location - East of Building 9B	Data Validated?
01/10/06 - 01/11/06	0.0005	ND	0.0020	-----	0.0005	ND	0.0005	0.0003	No
02/07/06 - 02/08/06	ND	0.0002 J	ND	-----	ND	0.0003	0.0003	0.0002 J	No
03/07/06 - 03/08/06	ND	ND	ND	-----	ND	0.0006	0.0006	0.0008	No
04/06/06 - 04/07/06	0.0006	-----	0.0004	0.0005	0.0005	0.0009	0.0014	0.0005	No
04/18/06 - 04/19/06	0.0010	-----	0.0011	0.0009	0.0040	0.0019	0.0148	0.0031	No
04/25/06 - 04/26/06	0.0009	-----	0.0010	0.0009	0.0007	0.0013	0.0019	0.0007	No
04/27/06 - 04/28/06	0.0006	-----	0.0006	0.0007	0.0004	0.0009	0.0020	0.0005	No
05/02/06 - 05/03/06 <sup>1</sup>	NA	-----	NA	NA	NA	NA	NA	NA	NA
05/04/06 - 05/05/06	0.0019	-----	0.0037	0.0030	0.0017	0.0041	0.0069	0.0026	No
05/09/06 - 05/10/06	0.0003	-----	0.0004	0.0004	ND	0.0005	0.0004	0.0050	No
05/11/06 - 05/12/06	0.0014	-----	0.0024	0.0026	0.0010	0.0005	0.0006	0.0011	No
05/16/06 - 05/17/06	0.0004	-----	0.0007	0.0011	0.0006	0.0009	0.0014	0.0009	No
05/18/06 - 05/19/06	0.0018	-----	0.0015	0.0021	0.0017	0.0015	0.0017	0.0019	No
05/23/06 - 05/24/06	0.0003	-----	ND	0.0004	ND	0.0011	0.0017	0.0005	No
05/25/06 - 05/26/06	0.0032 <sup>2</sup>	-----	0.0018	0.0056	0.0041	0.0015	0.0044	0.0010	No
05/31/06 - 06/01/06	0.0069	-----	0.0056	0.0060	0.0069	0.0030	0.0062	0.0024	No
06/01/06 - 06/02/06	0.0031	-----	0.0028	0.0043	0.0034	0.0038	0.0087	0.0030	No
06/06/06 - 06/07/06	0.0006	-----	ND	ND	ND	ND	ND	0.0018	No
06/12/06 - 06/13/06	0.0017	-----	0.0046	0.0037	0.0041	0.0013	0.0388	0.0009	No
06/13/06 - 06/14/06	0.0010	-----	0.0010	0.0007	0.0009	0.0022	0.0061	0.0014	No
06/20/06 - 06/21/06	0.0027	-----	0.0020	0.0030	0.0031	0.0024	0.0047	0.0012	No
06/22/06 - 06/23/06	0.0028	-----	0.0029	0.0027	0.0036	0.0022	0.0032	0.0025	No
06/27/06 - 06/28/06	0.0036 J	-----	0.0021 J	0.0019 J	0.0026 J	0.0006 J	0.0018 J	0.0019 J	PDR <sup>3</sup>
06/29/06 - 06/30/06	0.0013 J	-----	0.0014 J	0.0010 J	0.0020 J	0.0006 J	0.0021 J	0.0036 J	PDR <sup>3</sup>
07/06/06 - 07/07/06	0.0008 J	-----	0.0003 J	0.0007 J	0.0006 J	0.0005 J	0.0029 J	0.0004 J	PDR <sup>3</sup>
07/11/06 - 07/12/06	0.0024	-----	0.0018	0.0018	0.0016	0.0011	0.0045	0.0017	PDR <sup>3</sup>
07/13/06 - 07/14/06	0.0008 J	-----	0.0014 J	0.0010 J	0.0007 J	0.0008 J	0.0023 J	0.0012 J	PDR <sup>3</sup>
07/18/06 - 07/19/06	0.0018 J	-----	0.0026 J	0.0021 J	0.0020 J	0.0033 J	0.0089 J	0.0022 J	PDR <sup>3</sup>
07/20/06 - 07/21/06	0.0033	-----	0.0024	0.0031	0.0010	0.0008	0.0025	0.0021	PDR <sup>3</sup>
07/24/06 - 07/25/06	0.0014	-----	0.0016	0.0016	0.0017	0.0014	0.0045	0.0014	PDR <sup>3</sup>
07/31/06 - 08/01/06	0.0017	-----	0.0016 J	0.0011 J	0.0005 J	0.0015	0.0070	0.0023	PDR <sup>3</sup>
08/03/06 - 08/04/06	0.0010	-----	0.0017	0.0023	0.0013	0.0030	0.0107	0.0026	PDR <sup>3</sup>
08/08/06 - 08/09/06	ND	-----	0.0005	0.0004 J	NA <sup>4</sup>	NA <sup>4</sup>	NA <sup>4</sup>	NA <sup>4</sup>	PDR <sup>3</sup>
08/10/06 - 08/11/06	0.0011 J	-----	0.0011 J	0.0010 J	0.0004 J	0.0006 J	0.0020 J	0.0005 J	PDR <sup>3</sup>

**TABLE 5-2**  
**SUMMARY OF 2006 PCB AMBIENT AIR SAMPLING RESULTS**  
**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**  
(all results are  $\mu\text{g}/\text{m}^3$ )

Date	Northwest of OPCAs	Northwest of OPCAs colocated	West of OPCAs	West of OPCAs colocated	North of OPCAs	Southeast of OPCAs	Pittsfield Generating (PGE)	Background Sample Location - East of Building 9B	Data Validated?
08/14/06 - 08/15/06	0.0024	-----	NA <sup>5</sup>	0.0019	0.0017	0.0008	0.0024	0.0016 J	PDR <sup>3</sup>
<b>Exceedances of Notification Level (0.05 <math>\mu\text{g}/\text{m}^3</math>)</b>	None	None	None	None	None	None	None	None	

(See Notes on Pages 3 and 4)

**TABLE 5-2**  
**SUMMARY OF 2006 PCB AMBIENT AIR SAMPLING RESULTS**  
**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**  
**(all results are ug/m<sup>3</sup>)**

**Notes:**

All sampling and analytical activities performed and/or coordinated by Berkshire Environmental Consultants, Inc.

NA - Not Available

ND - Non Detect (<0.0003)

J - Sample results were qualified as estimated.

<sup>1</sup> No data available due to laboratory error.

<sup>2</sup> Data provided for information purposes only. Sampling period did not meet QA/QC criteria of 24 hours ± 60 minutes due to an interruption in street power.

<sup>3</sup> Preliminary data review (PDR) was conducted based on the following data quality indicators associated with the tabulated data set above: sampling collection time, sampling calibration check, temperature receipt, associated blanks, laboratory control samples recoveries, and surrogate recoveries.

<sup>4</sup> During the extraction step one of the SGS lab extractionists reported ethyl ether fumes. The analyst doing the extraction confirmed that the soxtherm had leaked and the extract volumes were low for a number of samples. The samples were analyzed but QA/QC review showed that the results were unacceptable. SGS' Lab Director and QA/QC group also confirmed that the low volume results were unacceptable. The lab only reported the validated results.

<sup>5</sup> Sample result for the W location from 08/14/06 to 08/15/06 not available due to equipment malfunction.

**Qualification Notes:**

1. Samples collected from the NW and Background locations from 02/07/06 to 02/08/06 are estimated values detected between the MDL and the PQL.
2. Samples collected from 06/27/06 to 06/28/06 were qualified as estimated due to surrogate recovery and/or laboratory control sample recovery deviations.
3. Samples collected from 06/29/06 to 06/30/06 were qualified as estimated due to surrogate recovery and/or laboratory control sample recovery deviations.
4. Samples collected from 07/06/06 to 07/07/06 were qualified as estimated due to surrogate recovery deviation.
5. All samples collected from 07/11/06 to 07/12/06 were greater than 4°C (PUF temperature was 20.2°C) upon laboratory receipt. The temperature of the temperature blank was recorded as less than 4°C. Following an investigation of the laboratory concerning the temperature receipt of PUF samples exhibiting a temperature greater than 6°C, the laboratory has discovered that the laboratory receipt technician was taking the temperature of the PUF while still wrapped in foil. The foil wrapped around the PUF caused an erroneous temperature reading from the IR thermometer. This was confirmed by 1) the temperature blank exhibiting a temperature less than 4°C and 2) the laboratory receipt technician peeled back the foil of the PUF samples receipt on 8/1/06 and a temperature reading of less than 5°C was observed; therefore, none of the data were qualified due to the documented PUF temperature deviation.
6. Samples collected from 07/13/06 to 07/14/06 were qualified as estimated due to the laboratory not recording the temperature of the PUF upon receipt and laboratory control sample recovery deviations. The temperature of the temperature blank was recorded as less than 4°C.
7. Samples collected from 07/18/06 to 07/19/06 were qualified as estimated due to the laboratory not recording the temperature of the PUF upon receipt.
8. All samples collected from 07/20/06 to 07/21/06 were greater than 4°C (PUF temperature was 21.4°C) upon laboratory receipt. The temperature of the temperature blank was recorded as less than 4°C. Following an investigation of the laboratory concerning the temperature receipt of PUF samples exhibiting a temperature greater than 6°C, the laboratory has discovered that the laboratory receipt technician was taking the temperature of the PUF while still wrapped in foil. The foil wrapped around the PUF caused an erroneous temperature reading from the IR thermometer. This was confirmed by 1) the temperature blank exhibiting a temperature less than 4°C and 2) the laboratory receipt technician peeled back the foil of the PUF samples receipt on 8/1/06 and a temperature reading of less than 5°C was observed; therefore, none of the data were qualified due to the documented PUF temperature deviation.
9. Samples collected from the W, W collocated and N locations from 07/31/06 to 08/01/06 were qualified as estimated due to one surrogate recovery less than the lower control limit and less than 10%.

(See Notes on Pages 3 and 4)

**TABLE 5-2**  
**SUMMARY OF 2006 PCB AMBIENT AIR SAMPLING RESULTS**  
**HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**  
**(all results are ug/m<sup>3</sup>)**

11. Samples collected from 08/10/06 to 08/11/06 were qualified as estimated due to low laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recovery less than the lower control limit.
12. Sample collected from the Background location from 08/14/06 to 08/15/06 was qualified due to the sampling calibration check.

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
01/10/06	North of OPCAs	0.016*	0.010*	10:30	WNW
	Pittsfield Generating Co.	0.023		10:30	
	Southeast of OPCAs	0.017		10:30	
	Northwest of OPCAs	0.023*		10:30	
	West of OPCAs	0.016*		10:30	
02/07/06	North of OPCAs	0.006*	0.005*	10:30	WNW
	Pittsfield Generating Co.	NA <sup>2</sup>		NA <sup>2</sup>	
	Southeast of OPCAs	0.046 <sup>3</sup>		13:45 <sup>4</sup>	
	Northwest of OPCAs	0.012*		10:15	
	West of OPCAs	0.008*		11:00	
04/17/06	North of OPCAs	0.003*	0.004*	9:45	NNW
	Pittsfield Generating Co.	0.005*		10:15	
	Southeast of OPCAs	0.004*		10:00	
	Northwest of OPCAs	0.002*		10:30	
	West of OPCAs	0.003*		10:30	
04/18/06	North of OPCAs	0.003*	0.003*	9:15 <sup>5</sup>	NNW
	Pittsfield Generating Co.	0.003*		10:45	
	Southeast of OPCAs	0.020*		10:45	
	Northwest of OPCAs	0.001*		10:30	
	West of OPCAs	0.003*		10:45	
04/19/06	North of OPCAs	0.001*	0.003*	6:15 <sup>5</sup>	NNW
	Pittsfield Generating Co.	0.004*		10:45	
	Southeast of OPCAs	0.005*		10:45	
	Northwest of OPCAs	0.001*		11:00	
	West of OPCAs	0.004*		11:00	
04/20/06	North of OPCAs	0.004*	0.005*	11:30	WNW, NNW
	Pittsfield Generating Co.	0.008*		12:00	
	Southeast of OPCAs	0.006*		11:30	
	Northwest of OPCAs	0.003*		11:30	
	West of OPCAs	0.006*		11:30	
04/21/06	North of OPCAs	0.004*	0.007*	10:30	Variable
	Pittsfield Generating Co.	0.010*		10:45	
	Southeast of OPCAs	0.008*		10:30	
	Northwest of OPCAs	0.004*		10:30	
	West of OPCAs	0.006*		10:30	
04/24/06	North of OPCAs	0.006*	0.007*	10:45	Calm
	Pittsfield Generating Co.	0.008*		10:45	
	Southeast of OPCAs	0.011*		10:45	
	Northwest of OPCAs	0.005*		10:45	
	West of OPCAs	0.007*		10:45	
04/25/06	North of OPCAs	0.015*	0.018*	10:45	WNW
	Pittsfield Generating Co.	0.025*		10:30	
	Southeast of OPCAs	0.022*		10:30	
	Northwest of OPCAs	0.013*		10:45	
	West of OPCAs	0.019*		10:45	
04/26/06	North of OPCAs	0.003*	0.005*	11:00	SSW
	Pittsfield Generating Co.	0.005*		10:45	
	Southeast of OPCAs	0.004*		10:45	
	Northwest of OPCAs	0.002*		11:00	
	West of OPCAs	0.004*		11:00	



**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
04/27/06	North of OPCAs	0.009*	0.013*	10:30	WNW
	Pittsfield Generating Co.	0.014*		10:30	
	Southeast of OPCAs	0.014*		10:30	
	Northwest of OPCAs	0.007*		10:30	
	West of OPCAs	0.012*		10:45	
04/28/06	North of OPCAs	0.003*	0.005*	10:45	NNW
	Pittsfield Generating Co.	0.006*		10:30	
	Southeast of OPCAs	0.006*		10:45	
	Northwest of OPCAs	0.003*		10:45	
	West of OPCAs	0.005*		10:45	
05/01/06	North of OPCAs	0.006*	0.009*	10:30	ENE
	Pittsfield Generating Co.	0.009*		10:30	
	Southeast of OPCAs	0.010*		10:30	
	Northwest of OPCAs	0.005*		10:30	
	West of OPCAs	0.010*		10:30	
05/02/06	North of OPCAs	0.007*	0.011*	11:00	Variable
	Pittsfield Generating Co.	0.010*		11:00	
	Southeast of OPCAs	0.014*		11:00	
	Northwest of OPCAs	0.005*		11:00	
	West of OPCAs	0.009*		11:00	
05/03/06	North of OPCAs	0.001*	0.002*	10:00	NNW
	Pittsfield Generating Co.	0.002*		10:15	
	Southeast of OPCAs	0.001*		5:30 <sup>5</sup>	
	Northwest of OPCAs	0.001*		10:15	
	West of OPCAs	0.002*		10:30	
05/04/06	North of OPCAs	0.003*	0.006*	11:00	WNW
	Pittsfield Generating Co.	0.011*		11:00	
	Southeast of OPCAs	0.004*		11:00	
	Northwest of OPCAs	0.001*		11:30	
	West of OPCAs	0.006*		11:30	
05/05/06	North of OPCAs	0.004*	0.007*	10:30	WNW
	Pittsfield Generating Co.	0.007*		10:30	
	Southeast of OPCAs	0.005*		10:30	
	Northwest of OPCAs	0.005*		10:30	
	West of OPCAs	0.006*		10:30	
05/08/06	North of OPCAs	0.006*	0.010*	10:45	Variable
	Pittsfield Generating Co.	0.010*		10:45	
	Southeast of OPCAs	0.007*		10:45	
	Northwest of OPCAs	0.007*		10:45	
	West of OPCAs	0.009*		10:45	
05/09/06	North of OPCAs	0.005*	0.013*	11:45	NNE
	Pittsfield Generating Co.	0.009*		11:45	
	Southeast of OPCAs	0.008*		11:45	
	Northwest of OPCAs	0.005*		11:45	
	West of OPCAs	0.009*		11:45	
05/10/06	North of OPCAs	0.004*	0.008*	10:45	ENE
	Pittsfield Generating Co.	0.009*		10:45	
	Southeast of OPCAs	0.005*		10:45	
	Northwest of OPCAs	0.004*		10:45	
	West of OPCAs	0.009*		10:45	

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
05/11/06	North of OPCAs	0.002*	0.006*	11:15	Variable
	Pittsfield Generating Co.	0.007*		11:15	
	Southeast of OPCAs	0.004*		11:15	
	Northwest of OPCAs	0.002*		11:15	
	West of OPCAs	0.007*		11:15	
05/12/06	North of OPCAs	0.006*	0.008*	11:45	Variable
	Pittsfield Generating Co.	0.001*		11:45	
	Southeast of OPCAs	0.004*		11:45	
	Northwest of OPCAs	0.010*		12:00	
	West of OPCAs	0.007*		12:00	
05/15/06	North of OPCAs	0.002*	0.002*	10:45	Variable
	Pittsfield Generating Co.	0.003*		9:30 <sup>5</sup>	
	Southeast of OPCAs	0.001*		11:15	
	Northwest of OPCAs	0.001*		11:00	
	West of OPCAs	0.002*		11:15	
05/16/06	North of OPCAs	0.007*	0.008*	11:30	W
	Pittsfield Generating Co.	0.008*		11:00	
	Southeast of OPCAs	0.007*		11:00	
	Northwest of OPCAs	0.005*		10:15	
	West of OPCAs	0.005*		11:15	
05/17/06	North of OPCAs	0.016*	0.015*	11:15	SSW
	Pittsfield Generating Co.	0.025*		11:15	
	Southeast of OPCAs	0.014*		11:15	
	Northwest of OPCAs	0.013*		11:15	
	West of OPCAs	0.011*		11:15	
05/18/06	North of OPCAs	0.022*	0.024*	11:00	SSW
	Pittsfield Generating Co.	0.029*		10:45	
	Southeast of OPCAs	0.023*		11:00	
	Northwest of OPCAs	0.021*		11:15	
	West of OPCAs	0.018*		11:30	
05/19/06	North of OPCAs	0.015*	0.022*	10:45	WSW
	Pittsfield Generating Co.	0.019*		10:00	
	Southeast of OPCAs	0.014*		10:45	
	Northwest of OPCAs	0.016*		10:45	
	West of OPCAs	0.014*		10:45	
05/22/06	North of OPCAs	0.001*	0.002*	8:15 <sup>5</sup>	WNW
	Pittsfield Generating Co.	0.014*		11:15	
	Southeast of OPCAs	0.002*		11:15	
	Northwest of OPCAs	0.001*		11:15	
	West of OPCAs	0.001*		11:15	
05/23/06	North of OPCAs	0.005*	0.008*	11:45	WNW
	Pittsfield Generating Co.	0.005*		11:30	
	Southeast of OPCAs	0.005*		11:45	
	Northwest of OPCAs	0.006*		11:45	
	West of OPCAs	0.002*		12:00	
05/24/06	North of OPCAs	0.004*	0.006*	11:30	WNW
	Pittsfield Generating Co.	0.006*		11:30	
	Southeast of OPCAs	0.004*		11:30	
	Northwest of OPCAs	0.004*		11:30	
	West of OPCAs	0.004*		11:30	

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
05/25/06	North of OPCAs	0.014*	0.014*	10:15	SSW
	Pittsfield Generating Co.	0.021*		10:00	
	Southeast of OPCAs	0.016*		10:15	
	Northwest of OPCAs	0.015*		10:30	
	West of OPCAs	0.011*		10:45	
05/26/06	North of OPCAs	0.028*	0.030*	10:45	Calm
	Pittsfield Generating Co.	0.035*		11:30	
	Southeast of OPCAs	0.028*		11:30	
	Northwest of OPCAs	0.031*		11:45	
	West of OPCAs	0.027*		11:15	
05/30/06	North of OPCAs	0.023*	0.023*	11:00	Variable
	Pittsfield Generating Co.	0.040*		10:30	
	Southeast of OPCAs	0.024*		9:00 <sup>5</sup>	
	Northwest of OPCAs	0.026*		11:00	
	West of OPCAs	0.012*		11:00	
05/31/06	North of OPCAs	0.046*	0.053*	11:15	WSW
	Pittsfield Generating Co.	0.057*		11:00	
	Southeast of OPCAs	0.046*		11:15	
	Northwest of OPCAs	0.049*		11:30	
	West of OPCAs	0.035*		11:30	
06/01/06	North of OPCAs	0.057*	0.072*	11:15	WSW, SSW
	Pittsfield Generating Co.	0.078*		11:15	
	Southeast of OPCAs	0.059*		11:15	
	Northwest of OPCAs	0.058*		11:15	
	West of OPCAs	0.042*		11:30	
06/02/06	North of OPCAs	0.014*	0.019*	10:30	WSW
	Pittsfield Generating Co.	0.020*		10:30	
	Southeast of OPCAs	0.016*		10:30	
	Northwest of OPCAs	0.016*		10:30	
	West of OPCAs	0.013*		10:30	
06/06/06	North of OPCAs	0.008*	0.010*	11:30	Calm
	Pittsfield Generating Co.	0.012*		11:30	
	Southeast of OPCAs	0.010*		11:30	
	Northwest of OPCAs	0.008*		11:45	
	West of OPCAs	0.007*		11:45	
06/12/06	North of OPCAs	0.005*	0.005*	10:15	WNW
	Pittsfield Generating Co.	0.014*		10:45	
	Southeast of OPCAs	0.009*		10:30	
	Northwest of OPCAs	0.003*		10:30	
	West of OPCAs	0.003*		11:15	
06/13/06	North of OPCAs	0.009*	0.009*	11:00	WNW
	Pittsfield Generating Co.	0.026*		10:30	
	Southeast of OPCAs	0.011*		11:00	
	Northwest of OPCAs	0.009*		11:00	
	West of OPCAs	0.003*		10:45	
06/14/06	North of OPCAs	0.013*	0.018*	10:45	Calm
	Pittsfield Generating Co.	0.024*		10:45	
	Southeast of OPCAs	0.013*		11:00	
	Northwest of OPCAs	0.014*		11:00	
	West of OPCAs	0.011*		11:00	

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
06/15/06	North of OPCAs	0.009*	0.010*	10:30	NNW
	Pittsfield Generating Co.	0.014*		10:30	
	Southeast of OPCAs	0.010*		10:30	
	Northwest of OPCAs	0.008*		10:30	
	West of OPCAs	0.011*		10:30	
06/16/06	North of OPCAs	0.015*	0.017*	9:45 <sup>5</sup>	WNW
	Pittsfield Generating Co.	0.022*		11:45	
	Southeast of OPCAs	0.017*		11:45	
	Northwest of OPCAs	0.016*		11:45	
	West of OPCAs	0.026*		6:45 <sup>5</sup>	
06/19/06 <sup>7</sup>	North of OPCAs	0.113*	<b>0.136*</b>	10:30	WSW, SSW
	Pittsfield Generating Co.	<b>0.153*</b>		10:45	
	Southeast of OPCAs	0.119*		10:45	
	Northwest of OPCAs	0.119*		10:30	
	West of OPCAs	<b>0.187*</b>		10:30	
06/20/06	North of OPCAs	0.022*	0.028*	10:30	WSW
	Pittsfield Generating Co.	0.031*		10:30	
	Southeast of OPCAs	0.018*		10:45	
	Northwest of OPCAs	0.020*		10:45	
	West of OPCAs	0.038*		10:45	
06/21/06	North of OPCAs	0.007*	0.007*	10:45	Variable
	Pittsfield Generating Co.	0.012*		10:45	
	Southeast of OPCAs	0.009*		10:45	
	Northwest of OPCAs	0.007*		10:45	
	West of OPCAs	0.013*		10:45	
06/22/06	North of OPCAs	0.029*	0.034*	11:30	SSW
	Pittsfield Generating Co.	0.041*		10:45	
	Southeast of OPCAs	0.035*		11:30	
	Northwest of OPCAs	0.030*		11:30	
	West of OPCAs	0.051*		11:30	
06/23/06	North of OPCAs	0.027*	0.037*	10:45	WNW
	Pittsfield Generating Co.	0.046*		10:45	
	Southeast of OPCAs	0.036*		10:45	
	Northwest of OPCAs	0.029*		10:45	
	West of OPCAs	0.057*		10:45	
06/26/06	North of OPCAs	0.012*	0.015*	8:45 <sup>8</sup>	SSW
	Pittsfield Generating Co.	0.020*		8:30 <sup>8</sup>	
	Southeast of OPCAs	0.021*		8:30 <sup>8</sup>	
	Northwest of OPCAs	0.014*		8:45 <sup>8</sup>	
	West of OPCAs	0.018*		8:45 <sup>8</sup>	
06/27/06	North of OPCAs	0.012*	0.011*	10:45	SSW
	Pittsfield Generating Co.	0.015*		10:30	
	Southeast of OPCAs	0.012*		10:45	
	Northwest of OPCAs	0.013*		10:45	
	West of OPCAs	0.022*		11:00	
06/28/06	North of OPCAs	0.004*	0.008*	11:30	Variable
	Pittsfield Generating Co.	0.007*		10:45	
	Southeast of OPCAs	0.003*		11:30	
	Northwest of OPCAs	0.007*		11:15	
	West of OPCAs	0.011*		11:30	

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
06/29/06	North of OPCAs	0.055*	0.057*	10:30	SSW
	Pittsfield Generating Co.	0.074*		10:00	
	Southeast of OPCAs	0.047*		11:00	
	Northwest of OPCAs	0.064*		10:30	
	West of OPCAs	0.062*		11:00	
06/30/06	North of OPCAs	0.030*	0.037*	11:00	WNW
	Pittsfield Generating Co.	0.046*		10:30	
	Southeast of OPCAs	0.046*		10:45	
	Northwest of OPCAs	0.039*		11:00	
	West of OPCAs	0.055*		10:45	
07/05/06	North of OPCAs	0.016*	0.021*	11:00	WNW
	Pittsfield Generating Co.	0.024*		11:00	
	Southeast of OPCAs	0.026*		10:45	
	Northwest of OPCAs	0.022*		10:45	
	West of OPCAs	0.032*		11:00	
07/06/06	North of OPCAs	0.002*	0.006*	11:00	WNW
	Pittsfield Generating Co.	0.007*		10:45	
	Southeast of OPCAs	0.021*		11:00	
	Northwest of OPCAs	0.006*		11:00	
	West of OPCAs	0.010*		11:15	
07/07/06	North of OPCAs	0.007*	0.008*	10:45	WNW
	Pittsfield Generating Co.	0.012*		10:45	
	Southeast of OPCAs	0.019*		10:45	
	Northwest of OPCAs	0.010*		10:45	
	West of OPCAs	0.017*		10:45	
07/10/06	North of OPCAs	0.030*	0.056*	10:45	Variable
	Pittsfield Generating Co.	0.046*		10:30	
	Southeast of OPCAs	0.044*		10:45	
	Northwest of OPCAs	0.037*		10:30	
	West of OPCAs	0.056*		10:45	
07/11/06	North of OPCAs	0.048 <sup>§</sup>	0.070*	11:15	NNW, WNW
	Pittsfield Generating Co.	0.088*		10:15	
	Southeast of OPCAs	0.085*		10:30	
	Northwest of OPCAs	0.071*		10:00	
	West of OPCAs	0.049 <sup>§</sup>		11:15	
07/12/06	North of OPCAs	0.026**	0.040*	11:15	Calm
	Pittsfield Generating Co.	0.066*		10:30	
	Southeast of OPCAs	0.063*		10:45	
	Northwest of OPCAs	0.054*		10:30	
	West of OPCAs	0.022**		11:15	
07/13/06	North of OPCAs	0.010**	0.007*	11:15	NNE, W
	Pittsfield Generating Co.	0.004*		11:00	
	Southeast of OPCAs	0.002*		10:30	
	Northwest of OPCAs	0.004*		11:00	
	West of OPCAs	0.013**		11:15	
07/14/06	North of OPCAs	0.011**	0.021*	11:00	WNW
	Pittsfield Generating Co.	0.030*		10:30	
	Southeast of OPCAs	0.028*		10:30	
	Northwest of OPCAs	0.026*		10:30	
	West of OPCAs	0.011**		11:00	

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
07/17/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.022** 0.025* 0.029* 0.021 <sup>9</sup> 0.018 <sup>9</sup>	0.013*	11:15 10:30 11:00 10:45 8:15 <sup>10</sup>	Variable
07/18/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.018** 0.031* 0.036* 0.018** 0.037*	0.024*	11:15 10:15 11:00 11:15 10:45	WNW
07/19/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.015** 0.017* 0.019* 0.009** 0.019*	0.013*	11:15 10:30 10:30 11:15 10:30	Calm
07/20/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.011** 0.020* 0.021* 0.012** 0.019*	0.004*	11:15 11:15 11:15 11:15 11:15	Calm
07/21/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.018** 0.052* 0.052* 0.018** 0.050*	0.056*	11:00 11:30 11:15 11:00 11:30	Variable
07/24/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.009** 0.010* 0.010* 0.007** 0.007*	0.009*	11:15 10:30 10:30 11:15 11:00	Variable
07/25/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.025** 0.046* 0.046* 0.024** 0.051*	0.038*	9:45 <sup>8</sup> 9:15 <sup>8</sup> 9:00 <sup>8</sup> 9:45 <sup>8</sup> 9:15 <sup>8</sup>	SSW
07/26/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.025** 0.063* 0.062* 0.025** 0.064*	0.045*	11:15 10:30 10:30 11:15 10:30	Variable
07/27/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.037** 0.108* 0.101* 0.035** 0.113*	0.082*	11:15 10:45 10:45 11:15 10:30	SSW
07/28/06	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Northwest of OPCAs West of OPCAs	0.026** 0.053* 0.052* 0.022** 0.060*	0.041*	9:00 <sup>6</sup> 10:30 10:30 11:00 10:30	SSW

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
07/31/06	North of OPCAs	0.012*	0.015*	10:30	Variable
	Pittsfield Generating Co.	0.020*		10:30	
	Southeast of OPCAs	0.021*		11:30	
	Northwest of OPCAs	0.010**		11:15	
	West of OPCAs	0.013*		10:45	
08/01/06	North of OPCAs	0.050*	0.048*	10:45	WSW
	Pittsfield Generating Co.	0.065*		10:45	
	Southeast of OPCAs	0.064*		10:45	
	Northwest of OPCAs	0.025**		11:15	
	West of OPCAs	0.051*		10:45	
08/02/06	North of OPCAs	0.049*	0.049*	10:30	WNW
	Pittsfield Generating Co.	0.068*		10:30	
	Southeast of OPCAs	0.070*		10:30	
	Northwest of OPCAs	0.031**		11:15	
	West of OPCAs	0.040*		10:00	
08/03/06	North of OPCAs	0.035*	0.034*	11:15	WNW
	Pittsfield Generating Co.	0.044*		10:45	
	Southeast of OPCAs	0.045*		11:15	
	Northwest of OPCAs	0.018**		11:15	
	West of OPCAs	0.037*		10:45	
08/04/06	North of OPCAs	0.005*	0.008*	10:15	NNW
	Pittsfield Generating Co.	0.010*		10:15	
	Southeast of OPCAs	0.010*		10:00	
	Northwest of OPCAs	0.006**		10:45	
	West of OPCAs	0.005*		10:00	
08/07/06	North of OPCAs	0.030*	0.024*	11:15	SSW
	Pittsfield Generating Co.	0.044*		11:15	
	Southeast of OPCAs	0.043*		11:15	
	Northwest of OPCAs	0.022**		11:15	
	West of OPCAs	0.022*		11:00	
08/08/06	North of OPCAs	0.007*	0.010*	11:15	NNW
	Pittsfield Generating Co.	0.013*		10:45	
	Southeast of OPCAs	0.014*		11:15	
	Northwest of OPCAs	0.008**		11:15	
	West of OPCAs	0.008*		11:30	
08/09/06	North of OPCAs	0.007*	0.006*	10:30	Calm
	Pittsfield Generating Co.	0.007*		10:15	
	Southeast of OPCAs	0.008*		10:30	
	Northwest of OPCAs	0.007**		11:15	
	West of OPCAs	0.007*		10:30	
08/10/06	North of OPCAs	0.018*	0.012*	11:00	SSW
	Pittsfield Generating Co.	0.015*		10:30	
	Southeast of OPCAs	0.016*		11:15	
	Northwest of OPCAs	0.016**		11:15	
	West of OPCAs	0.014*		10:45	
08/11/06	North of OPCAs	0.004*	0.004*	10:45	NNW
	Pittsfield Generating Co.	0.004*		11:00	
	Southeast of OPCAs	0.004*		11:00	
	Northwest of OPCAs	0.006**		11:15	
	West of OPCAs	0.004*		10:45	

**TABLE 5-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
08/14/06	North of OPCAs	0.025**	0.011*	11:00	SSW
	Pittsfield Generating Co.	0.014*		10:30	
	Southeast of OPCAs	0.016*		10:45	
	Northwest of OPCAs	0.018**		11:15	
	West of OPCAs	0.013*		11:00	
08/15/06	North of OPCAs	0.013**	0.007*	11:15	WSW
	Pittsfield Generating Co.	0.014*		10:15	
	Southeast of OPCAs	0.013*		11:30	
	Northwest of OPCAs	0.012**		11:15	
	West of OPCAs	0.012*		10:15	
08/16/06	North of OPCAs	0.007**	0.006*	11:15	NNW
	Pittsfield Generating Co.	0.007*		10:45	
	Southeast of OPCAs	0.009*		11:00	
	Northwest of OPCAs	0.007**		11:15	
	West of OPCAs	0.008*		10:45	
08/17/06	North of OPCAs	0.005**	0.005*	11:15	Calm
	Pittsfield Generating Co.	0.006*		11:00	
	Southeast of OPCAs	0.006*		11:00	
	Northwest of OPCAs	0.007**		11:15	
	West of OPCAs	0.005*		11:00	
08/18/06	North of OPCAs	0.011**	0.005*	11:00	SSW
	Pittsfield Generating Co.	0.012*		10:30	
	Southeast of OPCAs	0.014*		11:00	
	Northwest of OPCAs	0.010**		11:15	
	West of OPCAs	0.011*		10:45	
08/21/06	North of OPCAs	0.012**	0.005*	11:15	WNW
	Pittsfield Generating Co.	0.004*		10:30	
	Southeast of OPCAs	0.005*		10:45	
	Northwest of OPCAs	0.003**		11:15	
	West of OPCAs	0.003*		10:15	
08/22/06	North of OPCAs	0.008**	0.006*	11:15	WNW
	Pittsfield Generating Co.	0.006*		10:45	
	Southeast of OPCAs	0.006*		10:45	
	Northwest of OPCAs	0.007**		11:15	
	West of OPCAs	0.006*		10:30	
08/23/06	North of OPCAs	0.009**	0.012*	11:15	WNW
	Pittsfield Generating Co.	0.010*		10:45	
	Southeast of OPCAs	0.011*		10:15	
	Northwest of OPCAs	0.009**		11:15	
	West of OPCAs	0.010*		10:15	
08/24/06	North of OPCAs	0.005**	0.005*	11:15	Calm
	Pittsfield Generating Co.	0.007*		10:45	
	Southeast of OPCAs	0.005*		11:00	
	Northwest of OPCAs	0.004**		11:15	
	West of OPCAs	0.005*		10:45	
08/25/06	North of OPCAs	0.012**	0.031*	10:45	Calm
	Pittsfield Generating Co.	0.012*		10:45	
	Southeast of OPCAs	0.011*		10:45	
	Northwest of OPCAs	0.008**		10:45	
	West of OPCAs	0.011*		10:30	



**TABLE 5-3  
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>1</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
08/28/06	North of OPCAs	0.016**	0.019*	10:30	Calm
	Pittsfield Generating Co.	0.023*		10:30	
	Southeast of OPCAs	0.023*		10:15	
	Northwest of OPCAs	0.010**		10:30	
	West of OPCAs	0.021*		10:30	
08/29/06	North of OPCAs	0.011**	0.019*	10:15	Calm
	Pittsfield Generating Co.	0.015*		10:15	
	Southeast of OPCAs	0.017*		10:15	
	Northwest of OPCAs	0.022**		10:15	
	West of OPCAs	0.018*		10:00	
08/30/06	North of OPCAs	0.007**	0.011*	10:45	NNW
	Pittsfield Generating Co.	0.008*		10:45	
	Southeast of OPCAs	0.010*		10:45	
	Northwest of OPCAs	0.006**		10:45	
	West of OPCAs	0.007*		10:30	
08/31/06	North of OPCAs	0.005**	0.003*	10:15	Variable
	Pittsfield Generating Co.	0.003*		10:15	
	Southeast of OPCAs	0.004*		10:15	
	Northwest of OPCAs	0.004**		10:15	
	West of OPCAs	0.004*		10:00	
Notification Level		0.120			
Action Level		0.150			

Notes:

NA - Not Available

Concentrations with no asterisk measured with a pDR-1000.

\* Measured with a DR-2000 or DR-4000

\*\* Measured with an EBAM.

Background monitoring station is located east of Building 9B, between Building 9B and New York Avenue.

Predominant wind direction determined using hourly wind direction data from the Pittsfield Municipal Airport Weather Station.

<sup>1</sup> The particulate monitors obtain real-time data. The sampling data were obtained by BEC on the sampling date.

<sup>2</sup> Sampling data invalid - interference from cooling tower.

<sup>3</sup> Reading reflects average concentration manually recorded from the monitor at the end of the day.

<sup>4</sup> Estimated logging period.

<sup>5</sup> Sampling period was shortened due to instrument malfunction.

<sup>6</sup> Sampling period was shortened due to a power failure.

<sup>7</sup> The exceedances (bold concentrations) and overall high site values on this day are likely related to regional ambient pollutant and atmospheric conditions as reported by EPA and measured at several other sites in Pittsfield and other parts of New England. The relative difference between the background site concentration and the OPCAs site concentrations indicate that the OPCAs were not the significant contributor to these high values.

<sup>8</sup> Sampling period was shortened due to mid-morning notification of monitors needed.

<sup>9</sup> Represents data from a DR-4000 and an EBAM.

<sup>10</sup> Sampling period was shortened due to relocation of DR and EBAM monitors.

**TABLE 5-4**  
**BUILDING 71 CONSOLIDATION AREA LEACHATE TRANSFER SUMMARY**  
**PLANT AREA - HILL 78 & BUILDING 71 CONSOLIDATION AREAS**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Month / Year	Total Volume of Leachate Transferred (Gallons)
August 2005	55,000
September 2005	55,000
October 2005	378,000
November 2005	162,500
December 2005	168,000
January 2006	185,000
February 2006	125,000
March 2006	70,000
April 2006	104,000
May 2006	137,000
June 2006	139,000
July 2006	111,000
August 2006	121,000

Leachate is transferred from the Building 71 On-Plant Consolidation Area to Building 64G for treatment.

**ITEM 6  
PLANT AREA  
HILL 78 AREA - REMAINDER  
(GECD160)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

Completed supplemental pre-design soil investigations, as identified in Table 6-1.\*

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue to coordinate with the City of Pittsfield for the clearing of the sanitary sewer line beneath the Hill 78 Area.
- Prepare and submit plan to address the blockage within the storm sewer line located beneath the Hill 78 Area; and following EPA approval, mobilize Contractor to site to address blockage.
- Conduct additional video inspection of the storm and sanitary sewer lines within the Hill 78 Area after the lines have been cleared.
- Submit Supplemental Data Letter Report on supplemental pre-design soil investigations (due to EPA by September 19, 2006) (see Item 6.f below).\*

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

During cleaning of the 48-inch-diameter storm sewer line beneath Hill 78, a blockage in the pipe was encountered. After additional investigation activities, the blockage was determined to be approximately 42 feet long, located approximately 162 feet from the southern outlet of the pipe, and appeared to consist of construction and demolition debris. As noted above, GE will submit a plan to address this blockage.

**f. Proposed/Approved Work Plan Modifications**

On August 28, 2006, EPA approved a revised submittal date of September 19, 2006 for the Supplemental Data Letter Report on supplemental pre-design soil investigations.

**TABLE 6-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HILL 78 AREA-REMAINDER  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Supplemental Pre-Design Investigation	RAA9-DUP-2 (RAA9-J21)	8/17/06	4-6	Soil	SGS	VOC	
Supplemental Pre-Design Investigation	RAA9-I14	8/17/06	6-8	Soil	SGS	VOC, SVOC, Inorganics, PCDD/PCDF	
Supplemental Pre-Design Investigation	RAA9-I22	8/17/06	0-1	Soil	SGS	VOC	
Supplemental Pre-Design Investigation	RAA9-J21	8/17/06	4-6	Soil	SGS	VOC	
Supplemental Pre-Design Investigation	RAA9-J22	8/17/06	6-8	Soil	SGS	VOC	

Note:

1. Field duplicate sample locations are presented in parenthesis.

**TABLE 6-2  
PCB DATA RECEIVED DURING AUGUST 2006**

**SUPPLEMENTAL PRE-DESIGN INVESTIGATION  
HILL 78 AREA REMAINDER  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Sample ID</b>	<b>Depth (feet)</b>	<b>Date Collected</b>	<b>Aroclor-1016, -1221, -1232, -1242, -1248</b>	<b>Aroclor-1254</b>	<b>Aroclor-1260</b>	<b>Total PCBs</b>
RAA9-K4	6-15	6/23/2006	--	0.058	--	0.058
RAA9-NO5.5	1-6	6/23/2006	--	29	14	43

Notes:

1. These results have been revised by the laboratory and supersede those results reported in Table 6-6 of the July 2006 CD Monthly Report.
2. -- Sample results not revised by laboratory.

**ITEM 7  
PLANT AREA  
UNKAMET BROOK AREA  
(GECD170)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

- Continued activities related to the detailed surveys (including metes and bounds and topographic surveys) of the Unkamet Brook Area (being performed by Hill Engineers, Architects & Planners, Inc.).\*
- Conducted drum sampling of liquid and soil from the Building 51 catch basin, as identified in Table 7-1.

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue performing detailed surveys of the Unkamet Brook Area.\*
- Submit to EPA surveyed line for top-of-bank of Unkamet Brook south of Merrill Road.\*
- Submit plan for collecting information related to channel flow in Unkamet Brook.\*

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

None

**f. Proposed/Approved Work Plan Modifications**

In a letter dated August 15, 2005, GE proposed to remove Parcel L12-1-2 from the Unkamet Brook Area RAA. That proposal is pending approval from EPA.\*

**TABLE 7-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**UNKAMET BROOK AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Building 51 Catch Basin Liquid Drum Sampling	BLDG51-BASIN-LIQUID	8/16/06	Liquid	SGS	PCB, VOC, SVOC, Total Metals, Inorganics	
Building 51 Catch Basin Soil Drum Sampling	BLDG51-BASIN-SLUDGE	8/16/06	Soil	SGS	PCB, TCLP	

**ITEM 8  
FORMER OXBOW AREAS A & C  
(GECD410)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

- Initiated soil remediation actions.\*
- Conducted Toxicity Characteristic Leaching Procedure (TCLP), PCB, grain size, pH, and total organic carbon (TOC) sampling of soil in loam pile on Parcel I8-23-6, as identified in Table 8-1.
- Conducted TCLP sampling of other soil within Parcels I8-23-5, I8-23-6, and I8-23-9, as identified in Table 8-1.
- Removed loam pile from Parcel I8-23-6.
- Conducted air monitoring for particulates and PCBs in connection with remediation actions, as identified in Table 8-1.\*
- Based on discussions with EPA and the City of Pittsfield, GE agreed to remove certain additional soils from the drainage swale at the southern end of Oxbow A adjacent to previously approved excavations.
- Continued efforts to obtain access to Parcel I8-23-5 (owned by Exxon Mobil Oil Corporation) to conduct remediation activities.\*

**b. Sampling/Test Results Received**

See attached tables, as well as attached test reports from H.C. Nutting Company.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue soil remediation actions.\*
- Submit Addendum to Supplemental Information Package showing modified vegetation restoration plans as agreed with property owners.\*



**ITEM 8**  
**(cont'd)**  
**FORMER OXBOW AREAS A & C**  
**(GECD410)**  
**AUGUST 2006**

e. **General Progress/Unresolved Issues/Potential Schedule Impacts**

Awaiting access permission for remediation at Parcel I8-23-5.\*

f. **Proposed/Approved Work Plan Modifications**

None

**TABLE 8-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**FORMER OXBOW AREAS A AND C  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Loam Pile Sampling	LP1-Q1-C1	7/31/06	NA	Soil	SGS	TCLP	8/4/06
Loam Pile Sampling	LP1-Q2-C1	7/31/06	NA	Soil	SGS	TCLP	8/4/06
Loam Pile Sampling	LP1-Q3-C1	7/28/06	NA	Soil	SGS	TCLP	8/1/06
Loam Pile Sampling	LP1-Q4-C1	7/28/06	NA	Soil	SGS	TCLP	8/1/06
Loam Pile Sampling	LP2-C1	8/1/06	NA	Soil	SGS	TCLP	8/8/06
Loam Pile Sampling	LP2-C2	8/1/06	NA	Soil	SGS	PCB	8/8/06
Loam Pile Sampling	LP3-C1	8/1/06	NA	Soil	SGS	TCLP	8/8/06
Loam Pile Sampling	LP3-C2	8/1/06	NA	Soil	SGS	PCB	8/8/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-1	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-2	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-3	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-4	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-5	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-6	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-7	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-8	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-9	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-10	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-11	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Loam Pile Soil Sampling	I8-23-6-TOPSOILPILE-12	8/8/06	NA	Soil	SGS	Total Organic Matter, PH, Grainsize	8/30/06
Soil Sampling	TCLP-I8-23-5	8/10/06	0-1	Soil	SGS	TCLP - VOC, SVOC, Metals, Mercury, Pest, Herb	8/16/06
Soil Sampling	TCLP-I8-23-6	8/10/06	0-1	Soil	SGS	TCLP - Metals, Mercury, Pest, Herb	8/16/06
Soil Sampling	TCLP-I8-23-6-SWALE	8/16/06	0-1	Soil	SGS	TCLP - VOC, SVOC, Metals, Hg, Pest, Herb	8/31/06
Soil Sampling	TCLP-I8-23-9	8/10/06	0-1	Soil	SGS	TCLP - VOC, SVOC, Metals, Mercury, Pest, Herb	8/16/06
Ambient Air Particulate Matter Sampling	OX-1	8/1/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-2A	8/1/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-2B	8/1/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/1/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-1	8/2/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-2A	8/2/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-2B	8/2/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/2/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-1	8/3/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-2C	8/3/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-3	8/3/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/3/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-1	8/4/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-2C	8/4/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-3	8/4/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	Background Location	8/4/06	NA	Air	Berkshire Environmental	Particulate Matter	8/7/06
Ambient Air Particulate Matter Sampling	OX-1	8/7/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-2C	8/7/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-3	8/7/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06

**TABLE 8-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**FORMER OXBOW AREAS A AND C  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	Background Location	8/7/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-1	8/8/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-2C	8/8/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-3	8/8/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/8/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-1	8/9/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-2B	8/9/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-3	8/9/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/9/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-1	8/10/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-2B	8/10/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-3	8/10/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/10/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-1	8/11/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-2B	8/11/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-3	8/11/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	Background Location	8/11/06	NA	Air	Berkshire Environmental	Particulate Matter	8/14/06
Ambient Air Particulate Matter Sampling	OX-1	8/14/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-2B	8/14/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-3	8/14/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/14/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-1	8/15/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-2B	8/15/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-3	8/15/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/15/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-1	8/16/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-2B	8/16/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-3	8/16/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/16/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-1	8/17/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-2B	8/17/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-3	8/17/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/17/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-1	8/18/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-2B	8/18/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-3	8/18/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	Background Location	8/18/06	NA	Air	Berkshire Environmental	Particulate Matter	8/21/06
Ambient Air Particulate Matter Sampling	OX-1	8/21/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-2B	8/21/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-3	8/21/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/21/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-1	8/22/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-2B	8/22/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-3	8/22/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06

**TABLE 8-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**FORMER OXBOW AREAS A AND C  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Ambient Air Particulate Matter Sampling	Background Location	8/22/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-1	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-2B	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-3	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-1	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-2B	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-3	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-1	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-2B	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-3	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	OX-1	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-2B	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-2C	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-3	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-1	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-2C	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-3	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-1	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-2C	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-3	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-1	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-2C	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	OX-3	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
PCB Ambient Air Sampling	Field Blank	7/27 - 7/28/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-2A	7/27 - 7/28/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-1	7/27 - 7/28/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-1 (colocated)	7/27 - 7/28/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-3	7/27 - 7/28/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Background - East of Building 9B	7/27 - 7/28/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Field Blank	7/28 - 7/29/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-2A	7/28 - 7/29/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-1	7/28 - 7/29/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-1 (colocated)	7/28 - 7/29/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	OX-3	7/28 - 7/29/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Background - East of Building 9B	7/28 - 7/29/06	NA	Air	Berkshire Environmental	PCB	8/9/06
PCB Ambient Air Sampling	Field Blank	8/03 - 8/04/06	NA	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	OX-2C	8/03 - 8/04/06	NA	Air	Berkshire Environmental	PCB	8/10/06

**TABLE 8-1**  
**DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**  
**FORMER OXBOW AREAS A AND C**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
PCB Ambient Air Sampling	OX-1	8/03 - 8/04/06	NA	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	OX-1 (colocated)	8/03 - 8/04/06	NA	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	OX-3	8/03 - 8/04/06	NA	Air	Berkshire Environmental	PCB	8/10/06
PCB Ambient Air Sampling	Background - East of Building 9B	8/03 - 8/04/06	NA	Air	Berkshire Environmental	PCB	8/10/06

**TABLE 8-2  
PCB DATA RECEIVED DURING AUGUST 2006**

**LOAM PILE SAMPLING  
FORMER OXBOW AREAS A & C  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Aroclor-1016, -1221, -1232, -1242, -1248</b>	<b>Aroclor-1254</b>	<b>Aroclor-1260</b>	<b>Total PCBs</b>
LP2-C2	8/1/2006	ND(0.032)	ND(0.032)	0.25	0.25
LP3-C2	8/1/2006	ND(0.034)	ND(0.034)	0.050	0.050

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**TABLE 8-3  
TCLP DATA RECEIVED DURING AUGUST 2006**

**LOAM PILE SAMPLING  
FORMER OXBOW AREAS A & C  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	TCLP Regulatory Limits	LP1-Q1-C1 7/31/2006	LP1-Q2-C1 7/31/2006	LP1-Q3-C1 7/28/2006	LP1-Q4-C1 7/28/2006	LP2-C1 8/1/2006	LP3-C1 8/1/2006
<b>Volatile Organics</b>								
1,1-Dichloroethene		0.7	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
1,2-Dichloroethane		0.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
2-Butanone		200	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Benzene		0.5	ND(0.010)	ND(0.010)	0.0051 J	ND(0.010)	0.0020 J	ND(0.010)
Carbon Tetrachloride		0.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Chlorobenzene		100	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Chloroform		6	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Tetrachloroethene		0.7	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Trichloroethene		0.5	ND(0.010)	ND(0.010)	0.0038 J	ND(0.010)	0.0043 J	ND(0.010)
Vinyl Chloride		0.2	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
<b>Semivolatile Organics</b>								
1,4-Dichlorobenzene		7.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
2,4,5-Trichlorophenol		400	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
2,4,6-Trichlorophenol		2	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
2,4-Dinitrotoluene		0.13	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Cresol		200	ND(0.030)	ND(0.030)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Hexachlorobenzene		0.13	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Hexachlorobutadiene		0.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Hexachloroethane		3	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Nitrobenzene		2	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
Pentachlorophenol		100	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
Pyridine		5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
<b>Organochlorine Pesticides</b>								
Endrin		0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
Gamma-BHC (Lindane)		0.4	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
Heptachlor		0.008	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
Heptachlor Epoxide		0.008	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
Methoxychlor		10	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Technical Chlordane		0.03	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)
Toxaphene		0.5	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
<b>Herbicides</b>								
2,4,5-TP		1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
2,4-D		10	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
<b>Inorganics</b>								
Arsenic		5	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)
Barium		100	0.481 B	0.757 B	0.697 B	0.360 B	0.222 B	0.509 B
Cadmium		1	0.0110 B	0.00950 B	0.00730 B	0.00830 B	0.00260 B	ND(0.100)
Chromium		5	ND(0.100)	ND(0.100)	ND(0.100)	ND(0.100)	0.00340 B	0.00430 B
Lead		5	0.0946 B	0.107	0.0518 B	0.0543 B	ND(0.100)	ND(0.100)
Mercury		0.2	ND(0.000570)	ND(0.000570)	ND(0.000570)	ND(0.000570)	0.000416 B	0.000269 B
Selenium		1	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)
Silver		5	ND(0.100)	ND(0.100)	0.00420 B	ND(0.100)	ND(0.100)	ND(0.100)

**Notes:**

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of TCLP constituents.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**Data Qualifiers:**

Organics (volatiles, semivolatiles, pesticides, herbicides)

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

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.

**TABLE 8-4  
TCLP DATA RECEIVED DURING AUGUST 2006**

**SOIL SAMPLING  
FORMER OXBOW AREAS A & C  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Sample Depth (Feet): Date Collected:	TCLP Regulatory Limits	TCLP-18-23-5 0-1 8/10/2006	TCLP-18-23-6 0-1 8/10/2006	TCLP-18-23-6-Swale 0-1 8/16/2006	TCLP-18-23-9 0-1 8/10/2006
<b>Volatile Organics</b>						
1,1-Dichloroethene		0.7	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
1,2-Dichloroethane		0.5	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
2-Butanone		200	ND(0.025)	NA	0.014 J	ND(0.025)
Benzene		0.5	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
Carbon Tetrachloride		0.5	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
Chlorobenzene		100	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
Chloroform		6	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
Tetrachloroethene		0.7	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
Trichloroethene		0.5	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
Vinyl Chloride		0.2	ND(0.0010)	NA	ND(0.010)	ND(0.0010)
<b>Semivolatile Organics</b>						
1,4-Dichlorobenzene		7.5	ND(0.010)	NA	ND(0.010)	ND(0.010)
2,4,5-Trichlorophenol		400	ND(0.010)	NA	ND(0.010)	ND(0.010)
2,4,6-Trichlorophenol		2	ND(0.010)	NA	ND(0.010)	ND(0.010)
2,4-Dinitrotoluene		0.13	ND(0.010)	NA	ND(0.010)	ND(0.010)
Cresol		200	ND(0.030)	NA	0.013	ND(0.010)
Hexachlorobenzene		0.13	ND(0.010)	NA	ND(0.010)	ND(0.010)
Hexachlorobutadiene		0.5	ND(0.010)	NA	ND(0.010)	ND(0.010)
Hexachloroethane		3	ND(0.010)	NA	ND(0.010)	ND(0.010)
Nitrobenzene		2	ND(0.010)	NA	ND(0.010)	ND(0.010)
Pentachlorophenol		100	ND(0.050)	NA	ND(0.050)	ND(0.050)
Pyridine		5	ND(0.010)	NA	ND(0.010)	ND(0.010)
<b>Organochlorine Pesticides</b>						
Endrin		0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
Gamma-BHC (Lindane)		0.4	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
Heptachlor		0.008	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
Heptachlor Epoxide		0.008	ND(0.0040)	0.0010 J	ND(0.0040)	ND(0.0040)
Methoxychlor		10	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Technical Chlordane		0.03	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)
Toxaphene		0.5	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
<b>Herbicides</b>						
2,4,5-TP		1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
2,4-D		10	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
<b>Inorganics</b>						
Arsenic		5	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)
Barium		100	0.596 B	0.731 B	0.200 B	0.678 B
Cadmium		1	0.00180 B	ND(0.100)	0.00460 B	0.00180 B
Chromium		5	ND(0.100)	0.00810 B	ND(0.100)	0.0202 B
Lead		5	0.0760 B	0.228	ND(0.100)	0.180
Mercury		0.2	0.000185 B	0.000205 B	0.0000670 B	0.000165 B
Selenium		1	0.115 B	0.148 B	ND(0.200)	0.137 B
Silver		5	0.0102 B	0.00990 B	ND(0.100)	0.0123 B

**Notes:**

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of TCLP constituents.
2. NA - Not Analyzed.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**Data Qualifiers:**

Organics (volatiles, semivolatiles, pesticides, herbicides)

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

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.



**TABLE 8-5  
DATA RECEIVED DURING AUGUST 2006**

**LOAM PILE SOIL CHARACTERIZATION DATA  
FORMER OXBOW AREAS A & C  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Total Organic Matter (%)</b>	<b>pH (standard pH units)</b>
I8-23-6-TOPSOILPILE-1	08/08/06	5.2	6.9
I8-23-6-TOPSOILPILE-2	08/08/06	4.0	6.7
I8-23-6-TOPSOILPILE-3	08/09/06	4.7	6.9
I8-23-6-TOPSOILPILE-4	08/09/06	4.9	6.9
I8-23-6-TOPSOILPILE-5	08/10/06	6.0	6.7
I8-23-6-TOPSOILPILE-6	08/10/06	5.7	6.4
I8-23-6-TOPSOILPILE-7	08/11/06	8.4	6.7
I8-23-6-TOPSOILPILE-8	08/11/06	6.6	6.5
I8-23-6-TOPSOILPILE-9	08/11/06	6.8	6.8
I8-23-6-TOPSOILPILE-10	08/11/06	6.5	6.0
I8-23-6-TOPSOILPILE-11	08/15/06	7.7	6.2
I8-23-6-TOPSOILPILE-12	08/15/06	6.3	5.8

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of Total Organic Matter and pH.

**TABLE 8-6  
 AMBIENT AIR PCB DATA RECEIVED DURING AUGUST 2006**

**PCB AMBIENT AIR CONCENTRATIONS  
 FORMER OXBOW AREAS A & C  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Event Period	Date Analytical Results Received by BEC, Inc.	Field Blank (µg/PUF)	OX-2A (µg/m3)	OX-1 (µg/m3)	OX-1 (colocated) (µg/m3)	OX-3 (µg/m3)	Background - East of Building 9B (µg/m3)
7/27 - 7/28/06	8/7/06	ND (<0.10)	0.0038	0.0011	0.0016	0.0020	0.0024
7/28 - 7/29/06	8/7/06	ND (<0.10)	0.0043	0.0005	NA <sup>1</sup>	0.0013	0.0021
8/03 - 8/04/06	8/10/06	ND (<0.10)	0.0013	0.0014	0.0015	0.0036	0.0026
Notification Level		0.05	0.05	0.05	0.05	0.05	0.05

**Notes:**

ND - Non-Detect

NOTE: Preliminary data review was conducted based on the following data quality indicators associated with the tabulated data set above: sampling collection time, sampling calibration check, temperature receipt, associated blanks, laboratory control samples recoveries, and surrogate recoveries.

<sup>1</sup> OX-1 colocated sample from 07/28-07/29/06 aborted due to equipment failure.

**Qualification Notes:**

- All samples collected from 07/27/06 to 07/29/06 were greater than 4°C (PUF temperature was 9.8°C) upon laboratory receipt. The temperature of the temperature blank was recorded as less than 4°C. Following an investigation of the laboratory concerning the temperature receipt of PUF samples exhibiting a temperature greater than 6°C, the laboratory has discovered that the laboratory receipt technician was taking the temperature of the PUF while still wrapped in foil. The foil wrapped around the PUF caused an erroneous temperature reading from the IR thermometer. This was confirmed by 1) the temperature blank exhibiting a temperature less than 4°C and 2) the laboratory receipt technician peeled back the foil of the of PUF samples receipt on 8/1/06 and a temperature reading of less than 5°C was observed; therefore, none of the data were qualified due to the documented PUF temperature deviation.

**TABLE 8-7  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 FORMER OXBOW AREAS A & C  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>2</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
08/01/06	OX-1	0.051*	0.048*	10:15	WSW
	OX-2A	0.056*		10:15	
	OX-2B	0.055*		10:15	
08/02/06	OX-1	0.044*	0.049*	11:15	WNW
	OX-2A	0.055*		11:15	
	OX-2B	0.049*		11:30	
08/03/06 <sup>3</sup>	OX-1	0.033*	0.034*	11:15	WNW
	OX-2C	0.040*		10:45	
	OX-3	0.036*		11:00	
08/04/06	OX-1	0.009*	0.008*	11:45	NNW
	OX-2C	0.011*		12:00	
	OX-3	0.010*		11:45	
08/07/06	OX-1	0.035*	0.024*	11:00	SSW
	OX-2C	0.037*		11:00	
	OX-3	0.028*		10:45	
08/08/06	OX-1	0.013*	0.010*	11:00	NNW
	OX-2C	0.018*		11:00	
	OX-3	0.011*		11:00	
08/09/06 <sup>3</sup>	OX-1	0.008*	0.006*	10:45	Calm
	OX-2B	0.010*		10:45	
	OX-3	0.007*		10:45	
08/10/06	OX-1	0.012*	0.012*	11:30	SSW
	OX-2B	0.018*		11:30	
	OX-3	0.016*		11:30	
08/11/06	OX-1	0.003*	0.004*	10:45	NNW
	OX-2B	0.017*		10:30	
	OX-3	0.006*		10:30	
08/14/06	OX-1	0.016*	0.011*	9:00 <sup>4</sup>	SSW
	OX-2B	0.018*		11:45	
	OX-3	0.016*		12:00	
08/15/06	OX-1	0.015*	0.007*	11:30	WSW
	OX-2B	0.028*		11:30	
	OX-3	0.015*		11:30	
08/16/06	OX-1	0.009*	0.006*	11:00	NNW
	OX-2B	0.008*		4:10 <sup>4</sup>	
	OX-3	0.009*		11:00	
08/17/06	OX-1	0.006*	0.005*	11:00	Calm
	OX-2B	0.011*		10:54	
	OX-3	0.007*		11:00	
08/18/06	OX-1	0.014*	0.005*	10:45	SSW
	OX-2B	0.012*		11:00	
	OX-3	0.012*		11:00	

**TABLE 8-7  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 FORMER OXBOW AREAS A & C  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>2</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
08/21/06	OX-1	0.004*	0.005*	10:15	WNW
	OX-2B	0.009*		10:30	
	OX-3	0.004*		10:15	
08/22/06	OX-1	0.007*	0.006*	11:15	WNW
	OX-2B	0.011*		11:15	
	OX-3	0.007*		11:15	
08/23/06	OX-1	0.015*	0.012*	10:15	WNW
	OX-2B	0.014*		10:30	
	OX-3	0.007*		10:30	
08/24/06	OX-1	0.006*	0.005*	10:15	Calm
	OX-2B	0.007*		10:15	
	OX-3	0.007*		10:15	
08/25/06	OX-1	0.015*	0.031*	10:30	Calm
	OX-2B	0.014*		10:45	
	OX-3	0.011*		10:45	
08/28/06 <sup>3</sup>	OX-1	0.021*	0.019*	10:30	Calm
	OX-2B	0.018*		4:15 <sup>5</sup>	
	OX-2C	0.029*		6:15 <sup>5</sup>	
	OX-3	0.037*		10:30	
08/29/06	OX-1	0.024*	0.019*	11:30	Calm
	OX-2C	0.015*		11:30	
	OX-3	0.009*		6:15 <sup>4</sup>	
08/30/06	OX-1	0.010*	0.011*	10:30	NNW
	OX-2C	0.008*		10:30	
	OX-3	0.008*		10:00	
08/31/06	OX-1	0.008*	0.003*	9:45 <sup>4</sup>	Variable
	OX-2C	0.004*		11:00	
	OX-3	0.004*		11:00	
Notification Level		0.120			

**Notes:**

\* Measured with DR-2000 or DR-4000.

Background monitoring station is located east of Building 9B, between 9B and New York Avenue.

Predominant wind direction determined using hourly wind direction data from the Pittsfield Municipal Airport Weather Station.

<sup>1</sup> Monitoring was performed only on days when site activities occurred.

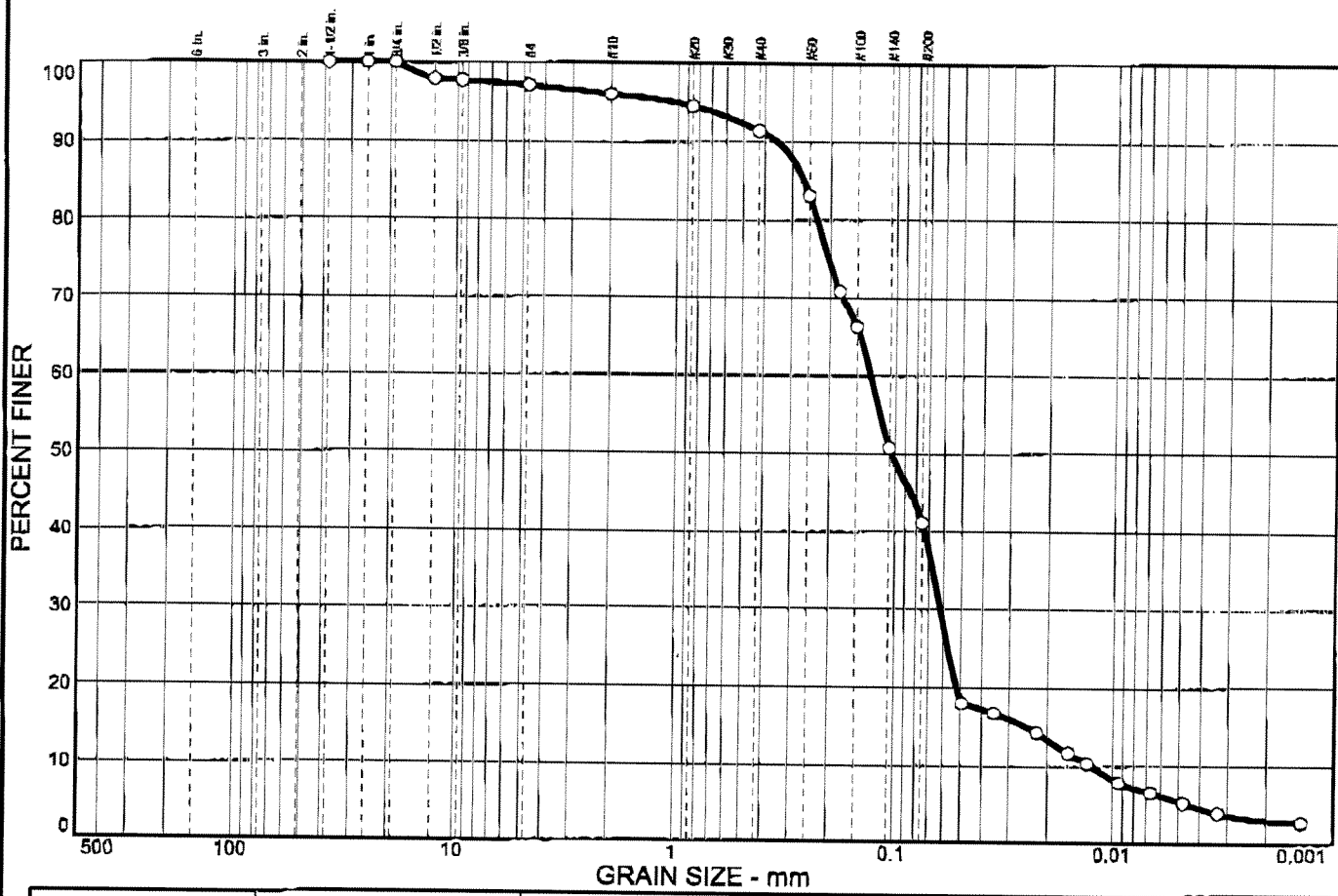
<sup>2</sup> The particulate monitors obtain real-time data. The sampling data were obtained by BEC on the sampling date.

<sup>3</sup> Monitoring locations changed due to progression of site activities.

<sup>4</sup> Sampling period was shortened due to instrument malfunction.

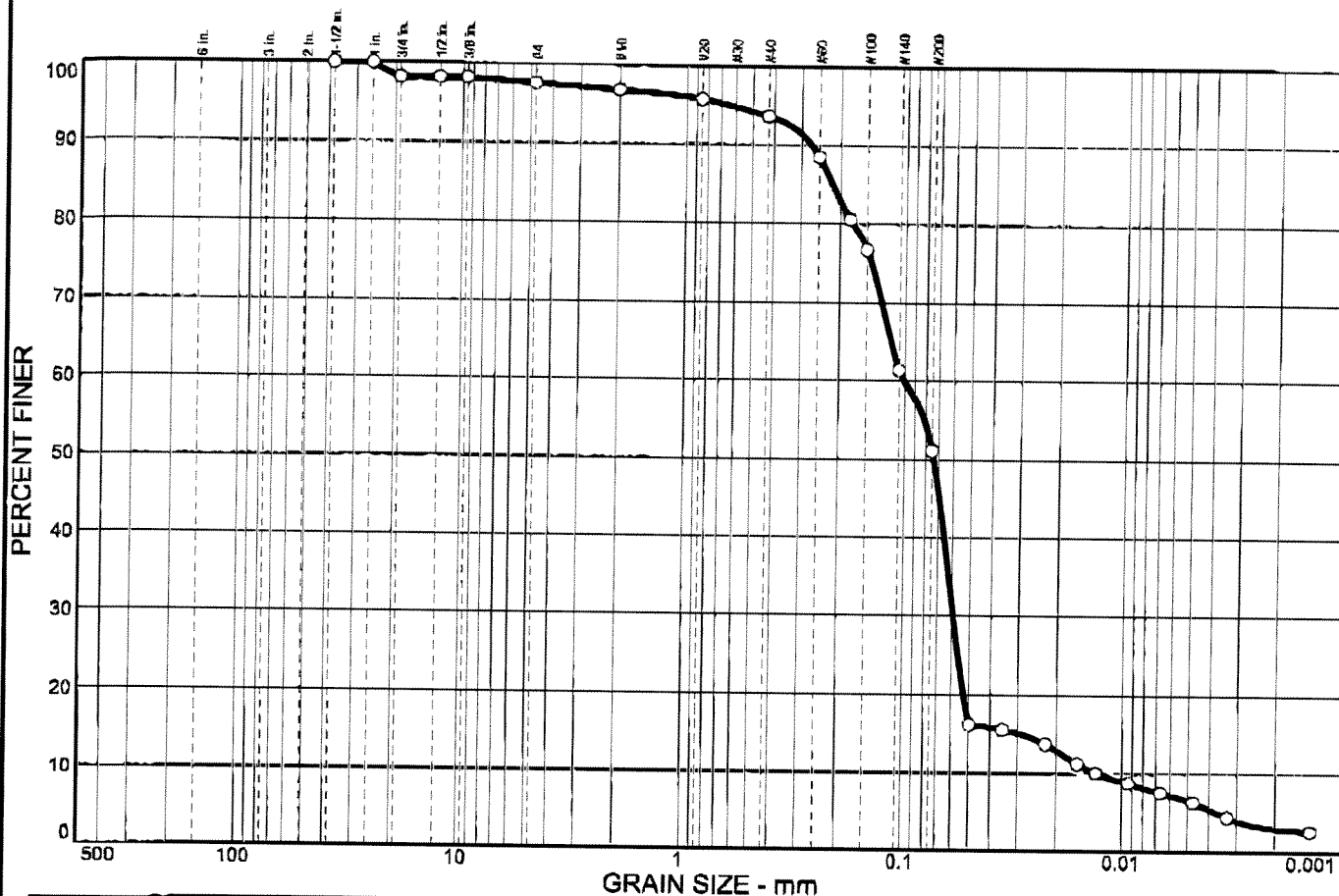
<sup>5</sup> Sampling period was shortened due to relocation of monitors.

# Particle Size Distribution Report





# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	1.8	0.6	0.8	3.2	42.5	44.6	6.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	100.0		
0.75 in.	98.2		
0.5 in.	98.2		
0.375 in.	98.2		
#4	97.6		
#10	96.8		
#20	95.7		
#40	93.6		
#60	88.5		
#80	80.6		
#100	76.8		
#140	61.4		
#200	51.1		

**Soil Description**

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>85</sub>= 0.217              D<sub>60</sub>= 0.101              D<sub>50</sub>= 0.0737

D<sub>30</sub>= 0.0592            D<sub>15</sub>= 0.0292            D<sub>10</sub>= 0.0132

C<sub>u</sub>= 7.65                      C<sub>c</sub>= 2.64

**Classification**

USCS=                      AASHTO=

**Remarks**

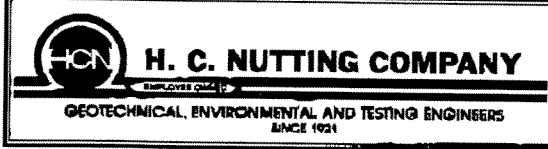
F.M.=0.29

\* (no specification provided)

Sample No.: 1  
Location:

Source of Sample: 3

Date: 8-30-06  
Elev./Depth: NA

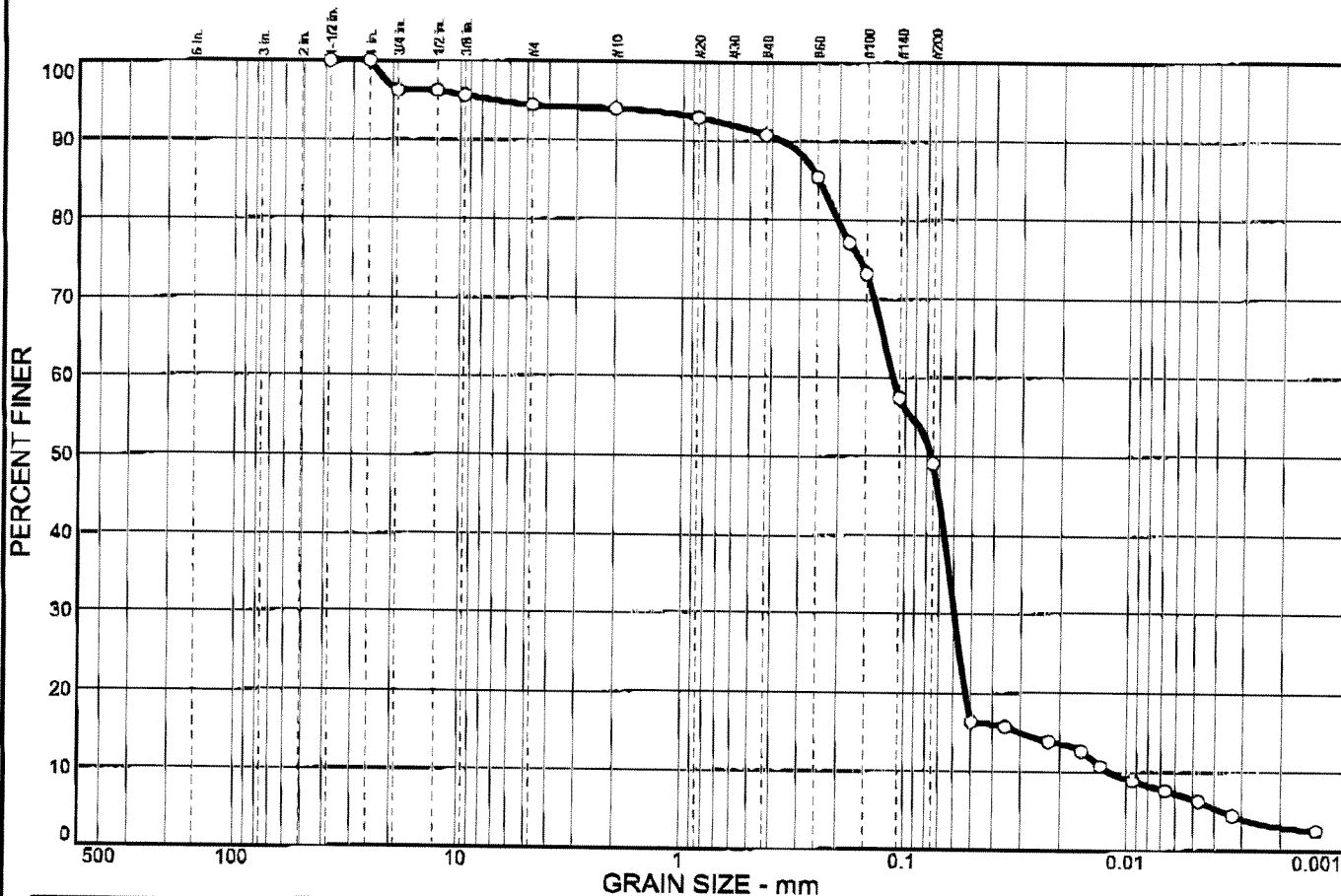


Client: SGS  
Project: Soil Testing

Project No: 91882.008

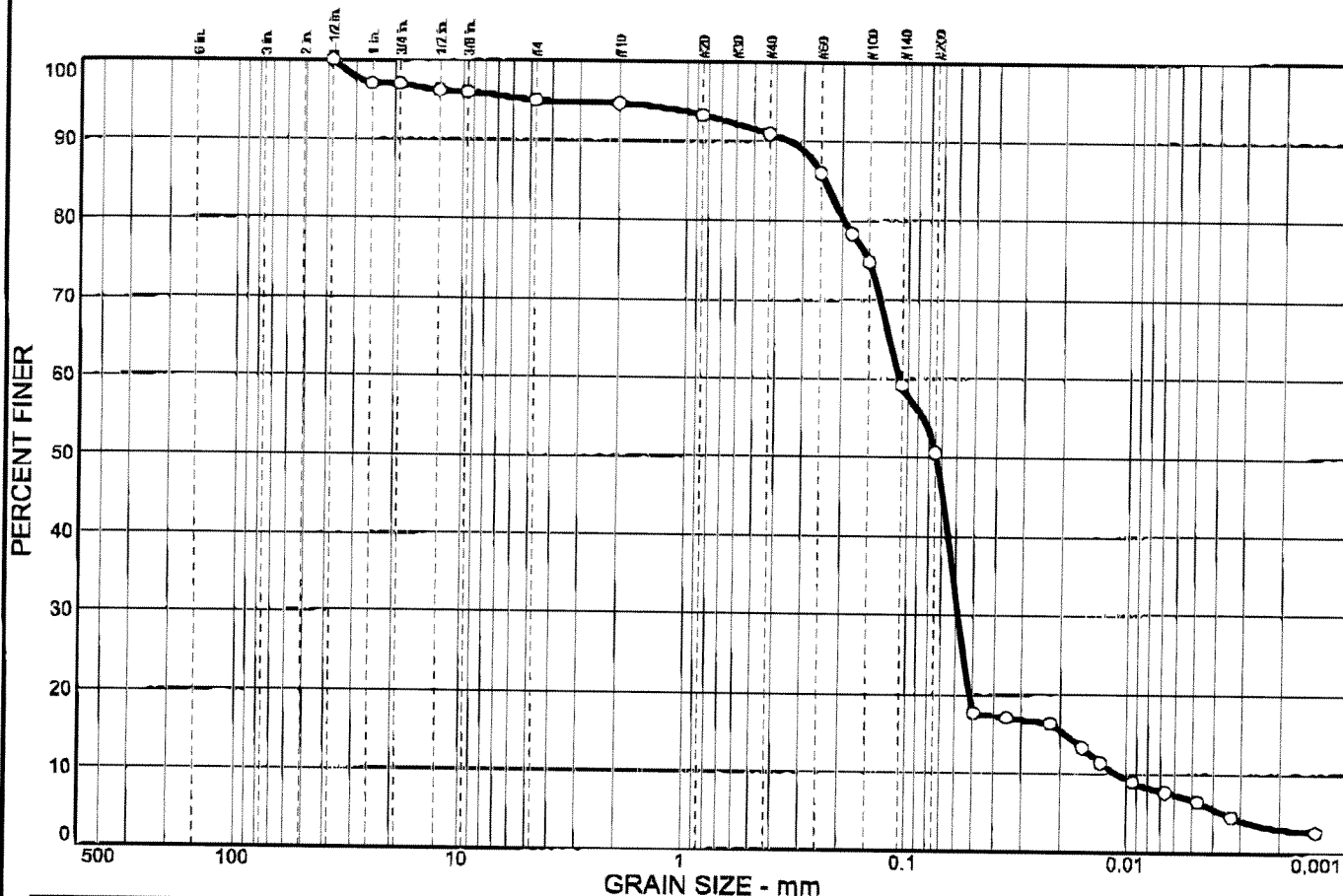
Plate

# Particle Size Distribution Report





# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	3.0	2.0	0.3	3.7	40.4	44.0	6.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	97.0		
0.75 in.	97.0		
0.5 in.	96.2		
0.375 in.	96.0		
#4	95.0		
#10	94.7		
#20	93.3		
#40	91.0		
#60	86.0		
#80	78.3		
#100	74.8		
#140	59.2		
#200	50.6		

(no specification provided)

**Soil Description**

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 0.239              D<sub>60</sub>= 0.109              D<sub>50</sub>= 0.0742  
 D<sub>30</sub>= 0.0583              D<sub>15</sub>= 0.0190              D<sub>10</sub>= 0.0111  
 C<sub>u</sub>= 9.79                      C<sub>c</sub>= 2.83

**Classification**  
 USCS=                      AASHTO=

**Remarks**

F.M.=0.37

Sample No.: 1  
 Location:

Source of Sample: 5

Date: 8-30-06  
 Elev./Depth: NA



**H. C. NUTTING COMPANY**

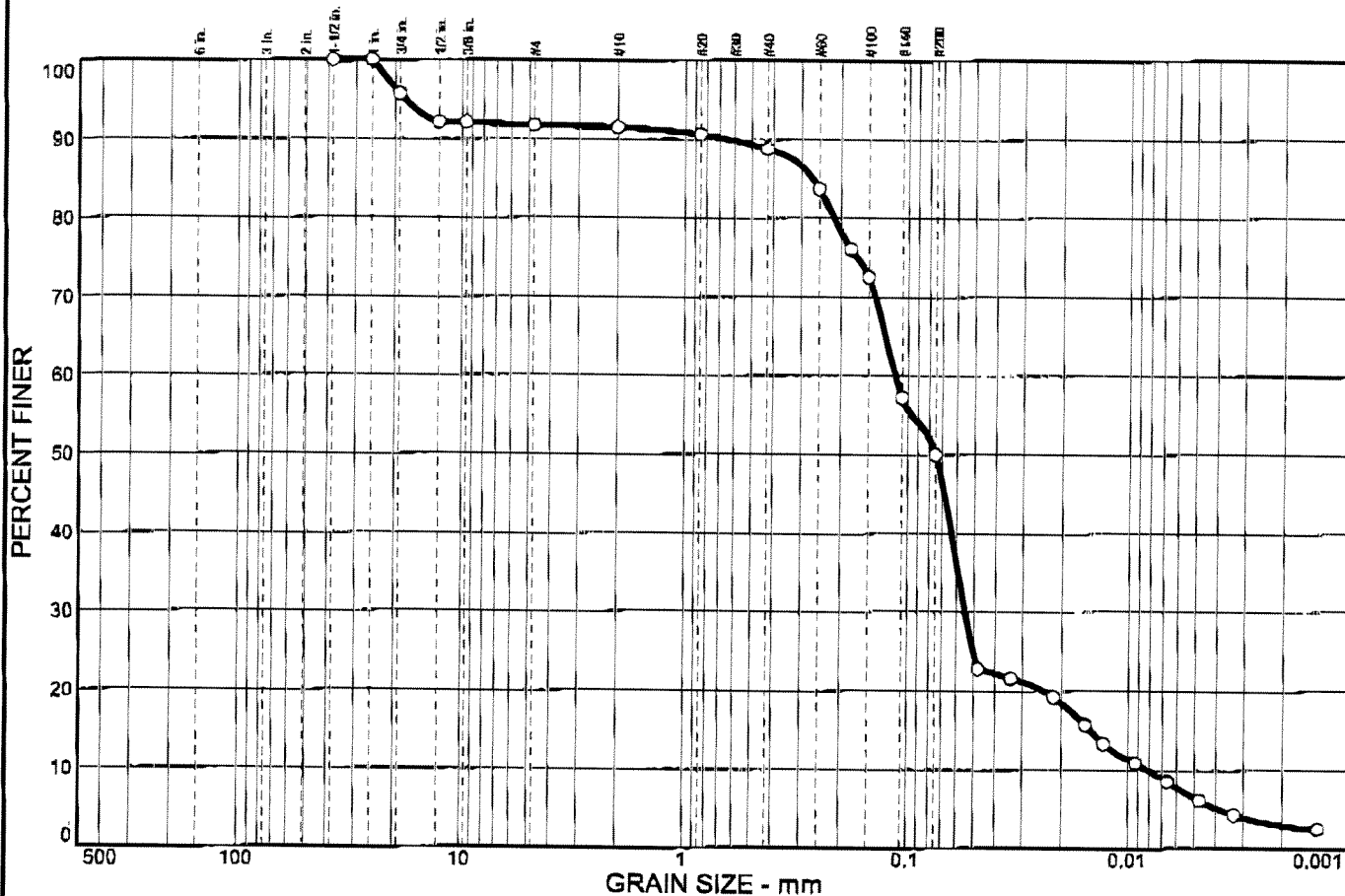
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS  
 SINCE 1921

Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate

# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	4.4	3.8	0.3	2.7	38.8	43.5	6.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	100.0		
0.75 in.	95.6		
0.5 in.	92.1		
0.375 in.	92.1		
#4	91.8		
#10	91.5		
#20	90.6		
#40	88.8		
#60	83.8		
#80	76.1		
#100	72.5		
#140	57.3		
#200	50.0		

(no specification provided)

**Soil Description**

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 0.266              D<sub>60</sub>= 0.114              D<sub>50</sub>= 0.0750  
 D<sub>30</sub>= 0.0547              D<sub>15</sub>= 0.0148              D<sub>10</sub>= 0.0081  
 C<sub>u</sub>= 14.09                  C<sub>c</sub>= 3.25

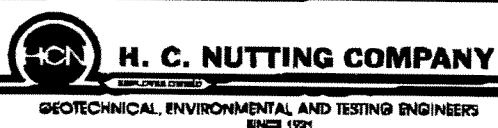
**Classification**  
 USCS=                      AASHTO=

**Remarks**  
 F.M.=0.48

Sample No.: 1  
 Location:

Source of Sample: 6

Date: 8-30-06  
 Elev./Depth: NA

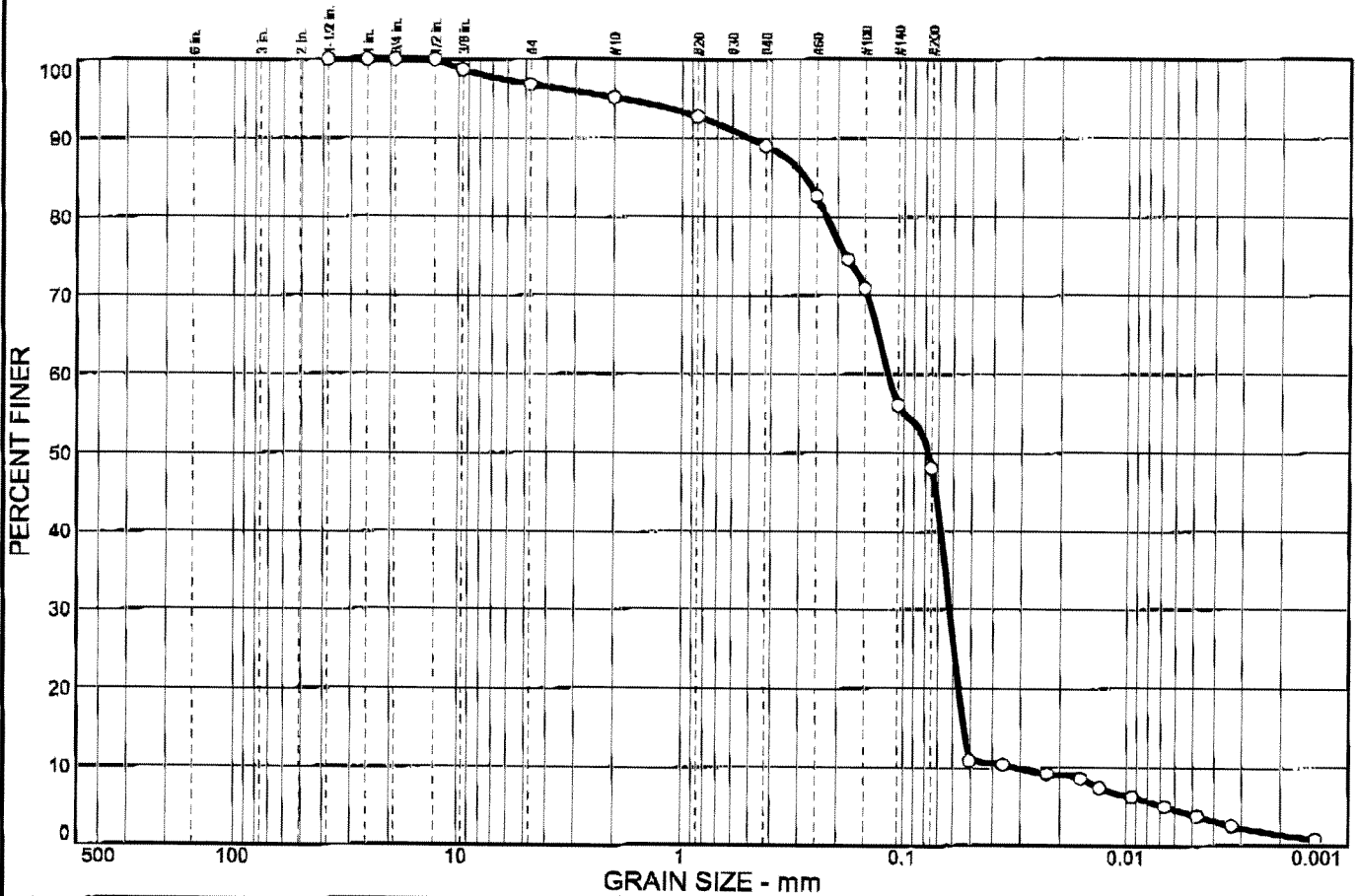


Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate

# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	3.2	1.7	6.1	40.9	44.1	4.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	100.0		
0.75 in.	100.0		
0.5 in.	100.0		
0.375 in.	98.7		
#4	96.8		
#10	95.1		
#20	92.7		
#40	89.0		
#60	82.7		
#80	74.6		
#100	70.9		
#140	56.1		
#200	48.1		

(no specification provided)

**Soil Description**

**Atterberg Limits**  
 LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 0.281      D<sub>60</sub>= 0.118      D<sub>50</sub>= 0.0776  
 D<sub>30</sub>= 0.0620      D<sub>15</sub>= 0.0535      D<sub>10</sub>= 0.0315  
 C<sub>u</sub>= 3.74              C<sub>c</sub>= 1.04

**Classification**  
 USCS=                      AASHTO=

**Remarks**

F.M.=0.34

Sample No.: 1  
 Location:

Source of Sample: 7

Date: 8-30-06  
 Elev./Depth: NA

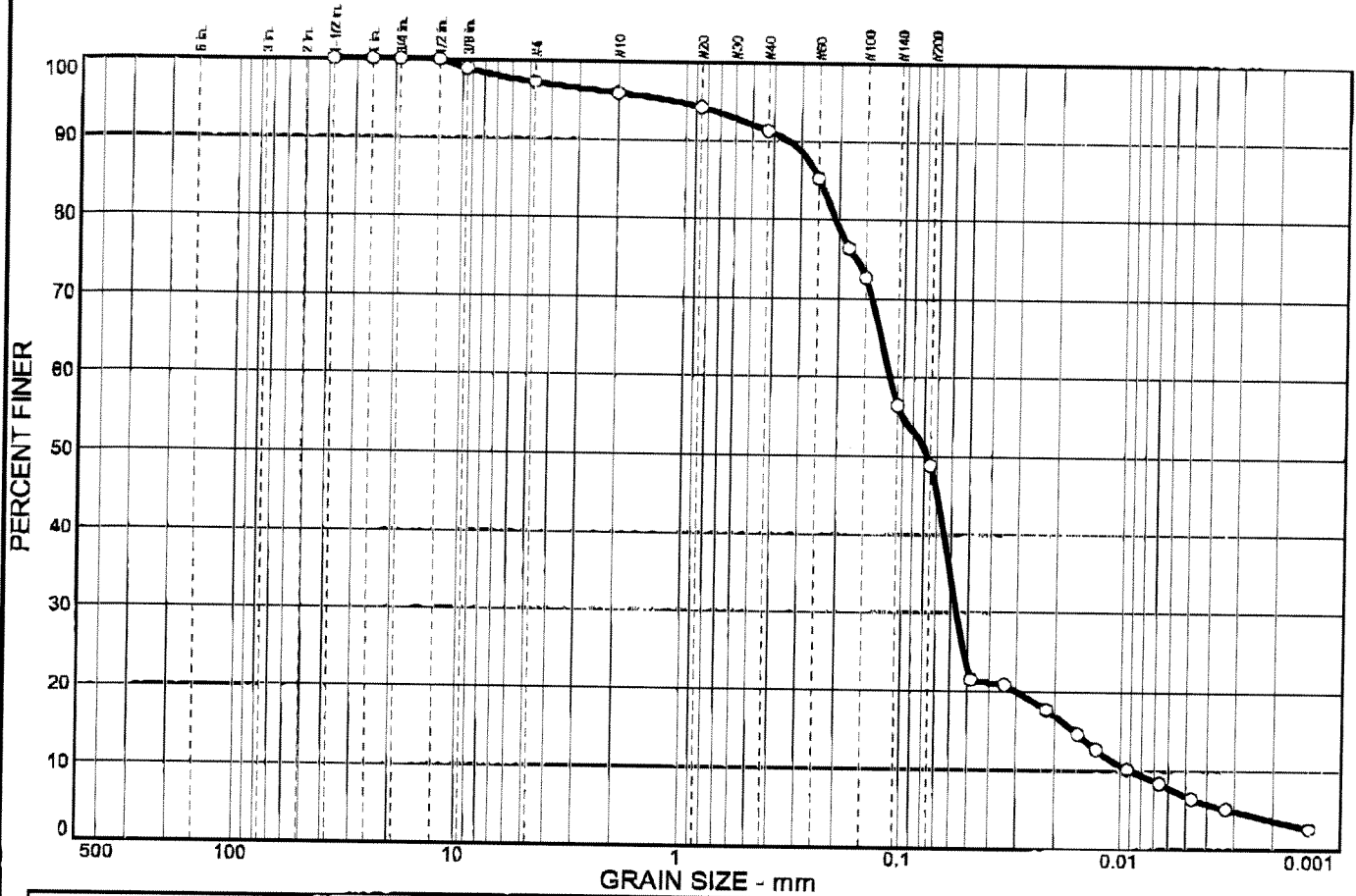


Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate

# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	2.8	1.3	4.6	42.5	42.0	6.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	100.0		
0.75 in.	100.0		
0.5 in.	100.0		
0.375 in.	98.9		
#4	97.2		
#10	95.9		
#20	94.2		
#40	91.3		
#60	85.3		
#80	76.5		
#100	72.7		
#140	56.5		
#200	48.8		

**Soil Description**

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 0.247              D<sub>60</sub>= 0.115              D<sub>50</sub>= 0.0774  
 D<sub>30</sub>= 0.0562              D<sub>15</sub>= 0.0164              D<sub>10</sub>= 0.0089  
 C<sub>u</sub>= 12.89                  C<sub>c</sub>= 3.06

**Classification**  
 USCS=                      AASHTO=

**Remarks**

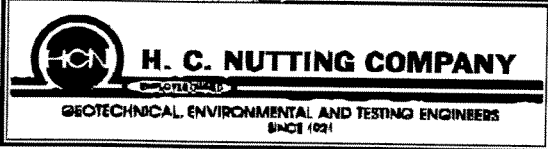
F.M.=0.31

(no specification provided)

Sample No.: 1  
 Location:

Source of Sample: 8

Date: 8-30-06  
 Elev./Depth: NA

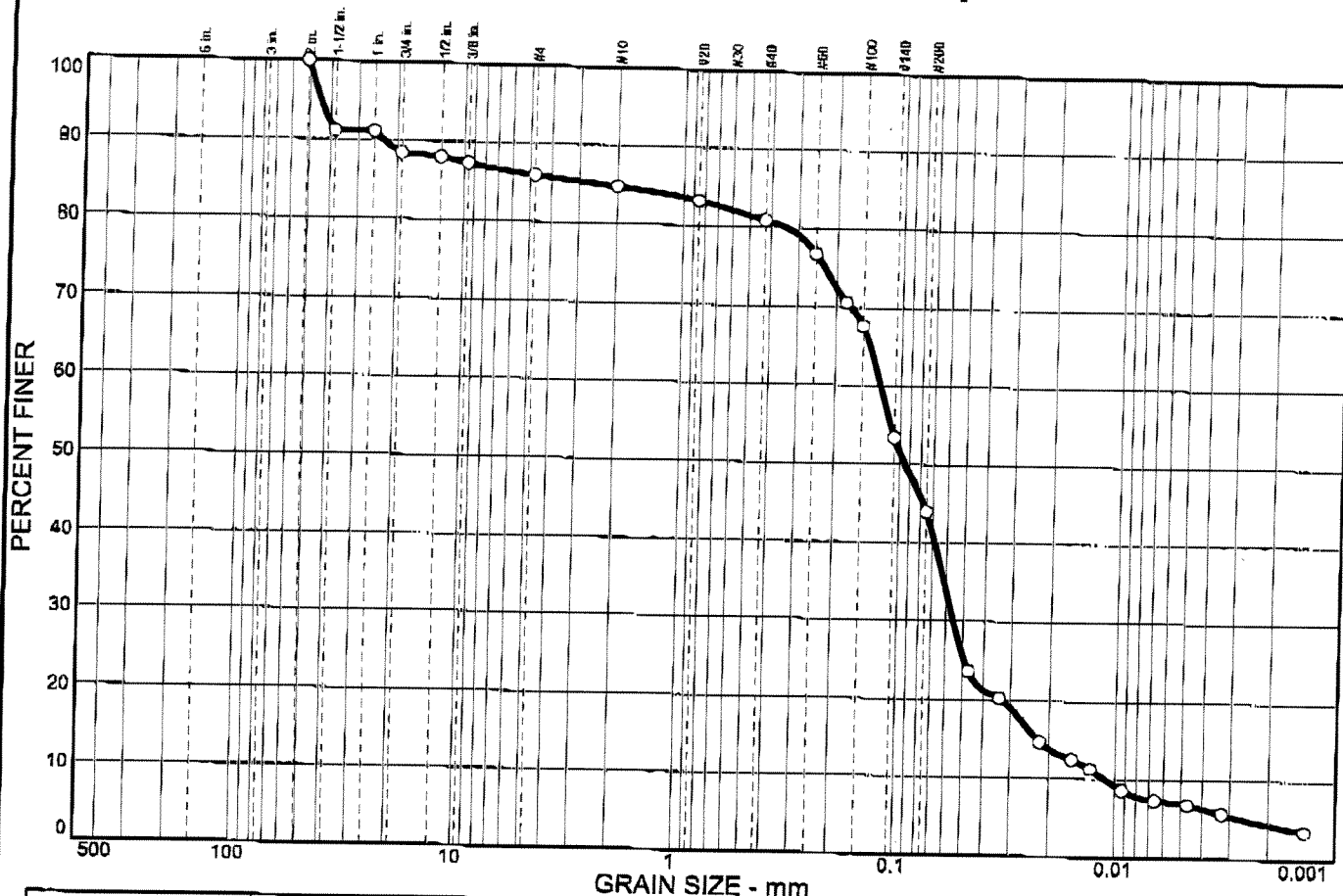


Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate

# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	11.6	2.4	1.2	3.9	37.0	36.9	7.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.0 in.	100.0		
1.5 in.	91.2		
1.0 in.	91.2		
0.75 in.	88.4		
.50 in.	88.0		
.375 in.	87.3		
#4	86.0		
#10	84.8		
#20	83.2		
#40	80.9		
#60	76.8		
#80	70.6		
#100	67.6		
#140	53.4		
#200	43.9		

(no specification provided)

**Soil Description**

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 2.32              D<sub>60</sub>= 0.124              D<sub>50</sub>= 0.0945  
 D<sub>30</sub>= 0.0554          D<sub>15</sub>= 0.0226              D<sub>10</sub>= 0.0111  
 C<sub>u</sub>= 11.16              C<sub>c</sub>= 2.24

**Classification**  
 USCS=                      AASHTO=

**Remarks**  
 F.M.=0.80

Sample No.: 1  
 Location:

Source of Sample: 9

Date: 8-30-06  
 Elev./Depth: NA



**H. C. NUTTING COMPANY**

GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS  
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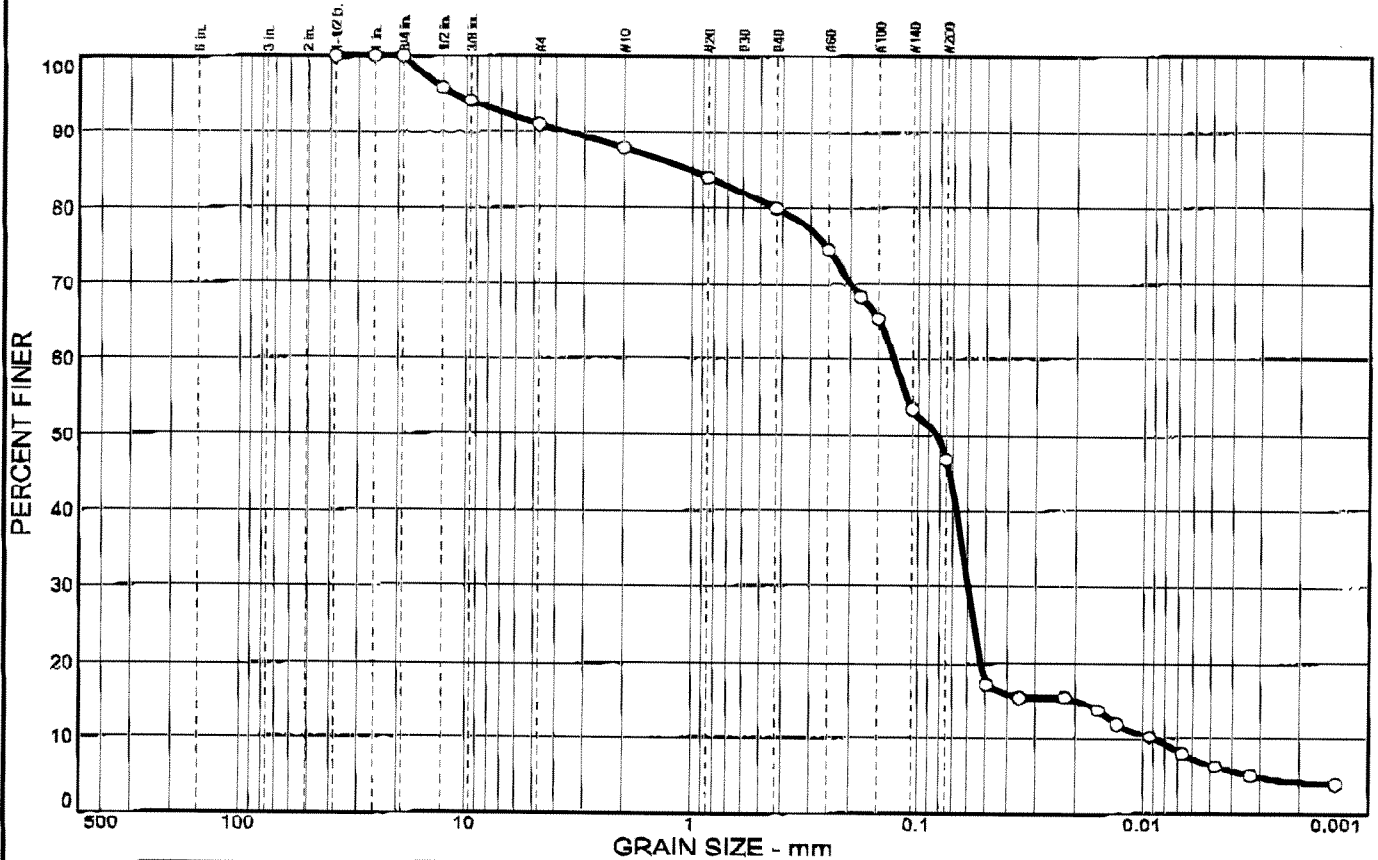
Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate



# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	9.0	3.2	7.9	33.1	40.3	6.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	100.0		
0.75 in.	100.0		
0.5 in.	95.7		
0.375 in.	94.0		
#4	91.0		
#10	87.8		
#20	84.1		
#40	79.9		
#60	74.5		
#80	68.2		
#100	65.3		
#140	53.4		
#200	46.8		

**Soil Description**

**Atterberg Limits**  
 LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Coefficients**  
 D<sub>85</sub>= 1.02      D<sub>60</sub>= 0.129      D<sub>50</sub>= 0.0825  
 D<sub>30</sub>= 0.0595      D<sub>15</sub>= 0.0193      D<sub>10</sub>= 0.0088  
 C<sub>u</sub>= 14.53      C<sub>c</sub>= 3.11

**Classification**  
 USCS= \_\_\_\_\_ AASHTO= \_\_\_\_\_

**Remarks**  
 F.M.=0.50

(no specification provided)

Sample No.: 1  
 Location:

Source of Sample: 11

Date: 8-30-06  
 Elev./Depth: NA

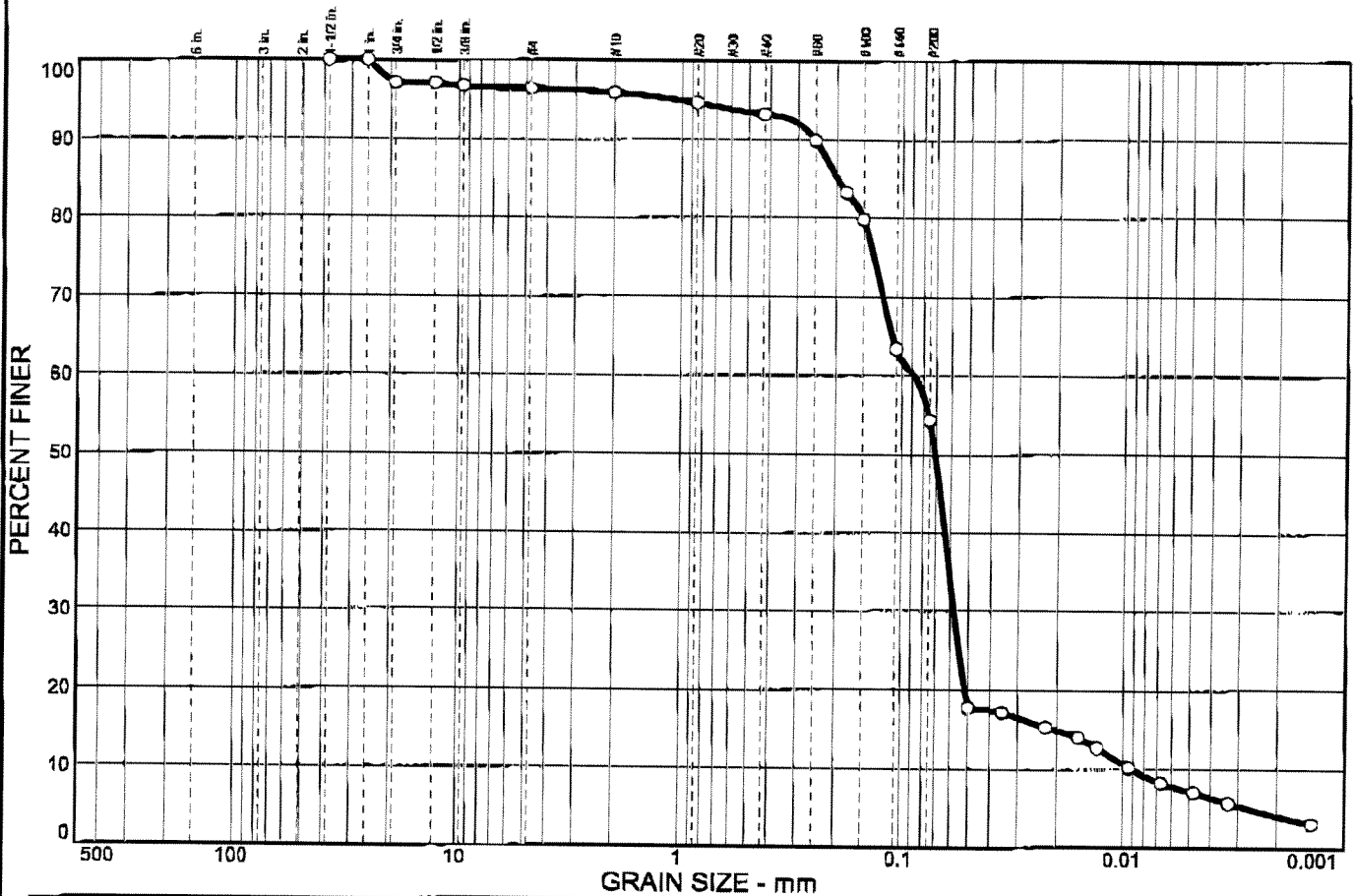


Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate

# Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	2.9	0.7	0.5	2.7	38.8	47.2	7.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5 in.	100.0		
1 in.	100.0		
0.75 in.	97.1		
0.5 in.	97.1		
0.375 in.	96.7		
#4	96.4		
#10	95.9		
#20	94.6		
#40	93.2		
#60	89.9		
#80	83.3		
#100	79.8		
#140	63.4		
#200	54.4		

(no specification provided)

**Soil Description**

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>85</sub>= 0.197              D<sub>60</sub>= 0.0881              D<sub>50</sub>= 0.0706  
 D<sub>30</sub>= 0.0577              D<sub>15</sub>= 0.0205              D<sub>10</sub>= 0.0091  
 C<sub>u</sub>= 9.67                      C<sub>c</sub>= 4.15

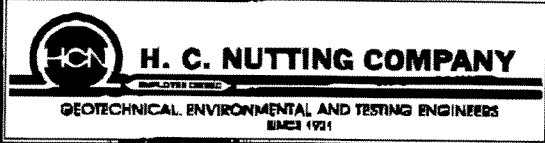
**Classification**  
 USCS=                      AASHTO=

**Remarks**  
 F.M.=0.30

Sample No.: 1  
 Location:

Source of Sample: 12

Date: 8-30-06  
 Elev./Depth: NA



Client: SGS  
 Project: Soil Testing

Project No: 91882.008

Plate



**ANALYSIS FOR  
MOISTURE, ASH  
& ORGANICS CONTENT**  
ASTM D 2974-00  
(Test Method A & C)



**H.C. NUTTING COMPANY**  
APPALACHIAN REGION - 812 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 26301  
(304) 344-0821

EMPLOYEE OWNED  
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Project: Soil Testing

W.O. # 91882.008

Date: 08/28/2006

Boring No. TA6-HO-PO91

Sample No. 1

Depth Range: -

Lab No. L0910

Description: Sampled 8-8-06

**Moisture Content (% of O.D. Mass)**

Wet Weight - Sample + Tare (g.)	402.6	Weight of Water (g.)	28.6
Dry Weight - Sample + Tare (g.)	374.0	Weight of Solids (g.)	266.7
Tare Weight (g.)	107.3	Moisture Content (%)	10.7

**Ash & Organics Content**

Beginning Weight (g.)	151.40	Tare Weight (g.)	74.00
Ending Weight (g.)	147.40	Muffle Furnace Temperature (°C)	440
Ash Content (%)	94.8	Organic Content (%)	5.17

Boring No. TA6-HO-PO91

Sample No. 2

Depth Range: -

Lab No. L0911

Description: Sampled 8-8-06

**Moisture Content**

Wet Weight - Sample + Tare (g.)	394.4	Weight of Water (g.)	70.8
Dry Weight - Sample + Tare (g.)	323.6	Weight of Solids (g.)	227.0
Tare Weight (g.)	96.6	Moisture Content (%)	31.2

**Ash & Organics Content**

Beginning Weight (g.)	155.90	Tare Weight (g.)	74.00
Ending Weight (g.)	152.60	Muffle Furnace Temperature (°C)	440
Ash Content (%)	96.0	Organic Content (%)	4.03

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**ANALYSIS FOR  
MOISTURE, ASH  
& ORGANICS CONTENT  
ASTM D 2974-00  
(Test Method A & C)**



**H.C. NUTTING COMPANY**  
APPALACHIAN REGION • 912 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 25301  
(304) 344-0821

**EMPLOYEE OWNED**  
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Project: Soil Testing

W.O. # 91882.008

Date: 08/28/2006

Boring No. TA6-HO-PO91

Sample No. 3

Depth Range: -

Lab No. L0912

Description: Sampled 8-9-06

**Moisture Content (% of O.D. Mass)**

Wet Weight - Sample + Tare (g.)	396.3	Weight of Water (g.)	74.4
Dry Weight - Sample + Tare (g.)	321.9	Weight of Solids (g.)	233.0
Tare Weight (g.)	88.9	Moisture Content (%)	31.9

**Ash & Organics Content**

Beginning Weight (g.)	150.70	Tare Weight (g.)	74.00
Ending Weight (g.)	147.10	Muffle Furnace Temperature (°C)	440
Ash Content (%)	95.3	Organic Content (%)	4.69

Boring No. TA6-HO-PO91

Sample No. 4

Depth Range: -

Lab No. L0913

Description: Sampled 8-9-06

**Moisture Content**

Wet Weight - Sample + Tare (g.)	401.2	Weight of Water (g.)	57.7
Dry Weight - Sample + Tare (g.)	343.5	Weight of Solids (g.)	238.2
Tare Weight (g.)	105.3	Moisture Content (%)	24.2

**Ash & Organics Content**

Beginning Weight (g.)	161.40	Tare Weight (g.)	74.00
Ending Weight (g.)	157.10	Muffle Furnace Temperature (°C)	440
Ash Content (%)	95.1	Organic Content (%)	4.92

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**ANALYSIS FOR  
MOISTURE, ASH  
& ORGANICS CONTENT  
ASTM D 2974-00  
(Test Method A & C)**



**H.C. NUTTING COMPANY**  
APPALACHIAN REGION - 812 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 25301  
(304) 344-0821

EMPLOYEE OWNED  
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Project: Soil Testing

W.O. # 91882.008

Date: 08/28/2006

Boring No. TA6-HO-PO91

Sample No. 5

Depth Range: -

Lab No. L0914

Description: Sampled 8-10-06

**Moisture Content (% of O.D. Mass)**

Wet Weight - Sample + Tare (g.)	391.2	Weight of Water (g.)	54.3
Dry Weight - Sample + Tare (g.)	336.9	Weight of Solids (g.)	244.8
Tare Weight (g.)	92.1	Moisture Content (%)	22.2

**Ash & Organics Content**

Beginning Weight (g.)	155.90	Tare Weight (g.)	74.00
Ending Weight (g.)	151.00	Muffle Furnace Temperature (°C)	440
Ash Content (%)	94.0	Organic Content (%)	5.98

Boring No. TA6-HO-PO91

Sample No. 6

Depth Range: -

Lab No. L0915

Description: Sampled 8-10-06

**Moisture Content**

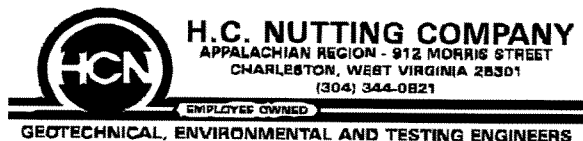
Wet Weight - Sample + Tare (g.)	405.3	Weight of Water (g.)	91.0
Dry Weight - Sample + Tare (g.)	314.3	Weight of Solids (g.)	216.7
Tare Weight (g.)	97.6	Moisture Content (%)	42.0

**Ash & Organics Content**

Beginning Weight (g.)	156.50	Tare Weight (g.)	74.00
Ending Weight (g.)	151.80	Muffle Furnace Temperature (°C)	440
Ash Content (%)	94.3	Organic Content (%)	5.70

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**ANALYSIS FOR  
MOISTURE, ASH  
& ORGANICS CONTENT**  
ASTM D 2974-00  
(Test Method A & C)



Client: SGS Environmental Services

Project: Soil Testing

W.O. # 91882.008

Date: 08/28/2006

Boring No. TA6-HO-PO91

Sample No. 7

Depth Range: -

Lab No. L0916

Description: Sampled 8-11-06

**Moisture Content (% of O.D. Mass)**

Wet Weight - Sample + Tare (g.)	396.3	Weight of Water (g.)	80.4
Dry Weight - Sample + Tare (g.)	315.9	Weight of Solids (g.)	219.5
Tare Weight (g.)	96.4	Moisture Content (%)	36.6

**Ash & Organics Content**

Beginning Weight (g.)	149.10	Tare Weight (g.)	74.00
Ending Weight (g.)	142.80	Muffle Furnace Temperature (°C)	440
Ash Content (%)	91.6	Organic Content (%)	8.39

Boring No. TA6-HO-PO91

Sample No. 8

Depth Range: -

Lab No. L0917

Description: Sampled 8-11-06

**Moisture Content**

Wet Weight - Sample + Tare (g.)	400.4	Weight of Water (g.)	78.8
Dry Weight - Sample + Tare (g.)	321.6	Weight of Solids (g.)	230.8
Tare Weight (g.)	90.8	Moisture Content (%)	34.1

**Ash & Organics Content**

Beginning Weight (g.)	160.20	Tare Weight (g.)	74.00
Ending Weight (g.)	154.50	Muffle Furnace Temperature (°C)	440
Ash Content (%)	93.4	Organic Content (%)	6.61

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**ANALYSIS FOR  
MOISTURE, ASH  
& ORGANICS CONTENT**  
ASTM D 2974-00  
(Test Method A & C)



**H.C. NUTTING COMPANY**  
APPALACHIAN REGION - 812 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 25301  
(304) 344-0821

EMPLOYEE OWNED  
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Project: Soil Testing

W.O. # 91882.008

Date: 08/28/2006

Boring No. TA6-HO-PO91

Sample No. 9

Depth Range: -

Lab No. L0918

Description: Sampled 8-11-06

**Moisture Content (% of O.D. Mass)**

Wet Weight - Sample + Tare (g.)	398.9	Weight of Water (g.)	66.8
Dry Weight - Sample + Tare (g.)	332.1	Weight of Solids (g.)	236.1
Tare Weight (g.)	96.0	Moisture Content (%)	28.3

**Ash & Organics Content**

Beginning Weight (g.)	171.30	Tare Weight (g.)	74.00
Ending Weight (g.)	164.70	Muffle Furnace Temperature (°C)	440
Ash Content (%)	93.2	Organic Content (%)	6.78

Boring No. TA6-HO-PO91

Sample No. 10

Depth Range: -

Lab No. L0919

Description: Sampled 8-11-06

**Moisture Content**

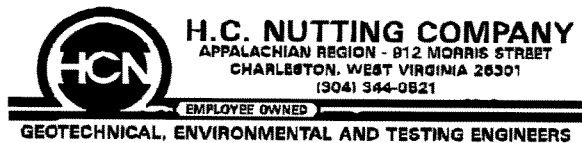
Wet Weight - Sample + Tare (g.)	414.8	Weight of Water (g.)	52.2
Dry Weight - Sample + Tare (g.)	362.6	Weight of Solids (g.)	254.1
Tare Weight (g.)	108.5	Moisture Content (%)	20.5

**Ash & Organics Content**

Beginning Weight (g.)	178.70	Tare Weight (g.)	74.00
Ending Weight (g.)	171.90	Muffle Furnace Temperature (°C)	440
Ash Content (%)	93.5	Organic Content (%)	6.49

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**ANALYSIS FOR  
MOISTURE, ASH  
& ORGANICS CONTENT  
ASTM D 2974-00  
(Test Method A & C)**



Client: SGS Environmental Services

Project: Soil Testing

W.O. # 91882.008

Date: 08/28/2006

Boring No. TA6-HO-PO91

Sample No. 11

Depth Range: -

Lab No. L0920

Description: Sampled 8-15-06

**Moisture Content (% of O.D. Mass)**

Wet Weight - Sample + Tare (g.)	399.5	Weight of Water (g.)	58.1
Dry Weight - Sample + Tare (g.)	341.4	Weight of Solids (g.)	249.0
Tare Weight (g.)	92.4	Moisture Content (%)	23.3

**Ash & Organics Content**

Beginning Weight (g.)	178.60	Tare Weight (g.)	74.00
Ending Weight (g.)	170.60	Muffle Furnace Temperature (°C)	440
Ash Content (%)	92.4	Organic Content (%)	7.65

Boring No. TA6-HO-PO91

Sample No. 12

Depth Range: -

Lab No. L0921

Description: Sampled 8-15-06

**Moisture Content**

Wet Weight - Sample + Tare (g.)	396.7	Weight of Water (g.)	44.1
Dry Weight - Sample + Tare (g.)	352.6	Weight of Solids (g.)	256.2
Tare Weight (g.)	96.4	Moisture Content (%)	17.2

**Ash & Organics Content**

Beginning Weight (g.)	185.40	Tare Weight (g.)	74.00
Ending Weight (g.)	178.40	Muffle Furnace Temperature (°C)	440
Ash Content (%)	93.7	Organic Content (%)	6.28

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**SOIL pH  
TEST REPORT**  
ASTM D4972  
(Method A)



**H.C. NUTTING COMPANY**

APPALACHIAN REGION - 912 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 25301  
(304) 344-0821

EMPLOYEE OWNED

GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Date: 08/28/2006

Project: Soil Testing - TA6-HO-PO91

WO No. 91882.008

Lab No.	Sample No.	Test No.	pH Reading / Distilled Water	pH Reading / CaCl
L0910	001	1	6.88	6.35
		2	6.84	6.37
		Difference	0.04	-0.02
		pH	6.86	6.36
L0911	002	1	6.66	6.36
		2	6.64	6.45
		Difference	0.02	-0.09
		pH	6.65	6.41
L0912	003	1	6.88	6.48
		2	6.89	6.5
		Difference	-0.01	-0.02
		pH	6.89	6.49
L0913	004	1	6.90	6.51
		2	6.90	6.31
		Difference	0	0.2
		pH	6.90	6.41

Tolerance of 2 test results

+/- 0.065 Distilled water

+/- 0.389 CaCl

Technician: J. Smith

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**SOIL pH  
TEST REPORT**  
ASTM D4972  
(Method A)



**H.C. NUTTING COMPANY**

APPALACHIAN REGION - 912 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 25301  
(304) 344-0821

EMPLOYEE OWNED

GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Date: 08/29/2006

Project: Soil Testing - TA6-HO-PO91

WO No. 91882.008

Lab No.	Sample No.	Test No.	pH Reading / Distilled Water	pH Reading / CaCl
L0914	005	1	6.71	6.61
		2	6.75	6.62
		Difference	-0.04	-0.01
		pH	6.73	6.62
L0915	006	1	6.41	6.30
		2	6.36	6.41
		Difference	0.05	-0.11
		pH	6.39	6.36
L0916	007	1	6.65	6.10
		2	6.68	6.28
		Difference	-0.03	-0.18
		pH	6.67	6.19
L0917	008	1	6.52	6.20
		2	6.56	6.46
		Difference	-0.04	-0.26
		pH	6.54	6.33

Tolerance of 2 test results

+/- 0.065 Distilled water

+/- 0.389 CaCl

Technician: J. Smith

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**SOIL pH  
TEST REPORT**  
ASTM D4972  
(Method A)



**H.C. NUTTING COMPANY**

APPALACHIAN REGION - 912 MORRIS STREET  
CHARLESTON, WEST VIRGINIA 25301  
(304) 344-0821

EMPLOYEE OWNED

GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

Client: SGS Environmental Services

Date: 08/28/2006

Project: Soil Testing - TA6-HO-PO91

WO No. 91882.008

Lab No.	Sample No.	Test No.	pH Reading / Distilled Water	pH Reading / CaCl
L0918	009	1	6.82	6.50
		2	6.80	6.59
		Difference	0.02	-0.09
		pH	6.81	6.55
L0919	010	1	6.02	5.71
		2	6.01	5.85
		Difference	0.01	-0.14
		pH	6.02	5.78
L0920	011	1	6.21	6.14
		2	6.25	6.19
		Difference	-0.04	-0.05
		pH	6.23	6.17
L0921	012	1	5.76	5.63
		2	5.74	5.6
		Difference	0.02	0.03
		pH	5.75	5.62

Tolerance of 2 test results

+/- 0.065 Distilled water

+/- 0.389 CaCl

Technician: J. Smith

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**ITEM 9  
LYMAN STREET AREA  
(GEC430)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- Initiated soil remediation actions at properties west of Lyman Street.
- Conducted TCLP sampling of soil from the five general excavation areas, as identified in Table 9-1.
- Conducted air monitoring for particulates in connection with remediation activities, as identified in Table 9-1.
- Conducted drum sampling at Building 78 of well decommissioning materials, as identified in Table 9-1.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Complete soil remediation actions at properties west of Lyman Street.
- Submit Addendum to Supplemental Information Package showing modified vegetation restoration plans as agreed with property owners.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 9-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**LYMAN STREET AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Drum Sampling	BLDG78-F2818-0823	8/23/06	NA	Soil	SGS	PCB, TCLP	
Drum Sampling	BLDG78-F2918-0823	8/23/06	NA	Liquid	SGS	PCB, VOC, SVOC, Total Metals	
Soil Sampling	TCLP-I9-4-14	8/17/06	0-3	Soil	SGS	TCLP- Metals, Pest, Herb	8/24/06
Soil Sampling	TCLP-I9-4-19	8/17/06	0-1	Soil	SGS	TCLP- Metals, Pest, Herb	8/24/06
Soil Sampling	TCLP-I9-4-19-25-203	8/17/06	0-3	Soil	SGS	TCLP- Metals, Pest, Herb	8/24/06
Soil Sampling	TCLP-I9-4-201-NORTH	8/18/06	0-1	Soil	SGS	TCLP- Metals, Pest, Herb	8/24/06
Soil Sampling	TCLP-I9-4-201-SOUTH	8/18/06	0-6	Soil	SGS	TCLP- Metals, Pest, Herb	8/24/06
Ambient Air Particulate Matter Sampling	LY-1	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-2B	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-4	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/23/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-1	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-2B	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-4	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/24/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-1	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-2B	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-4	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	Background Location	8/25/06	NA	Air	Berkshire Environmental	Particulate Matter	8/29/06
Ambient Air Particulate Matter Sampling	LY-1	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-2B	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-4	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/28/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-1	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-2B	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-4	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/29/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-1	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-2B	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-4	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/30/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-1	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-2B	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	LY-4	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06
Ambient Air Particulate Matter Sampling	Background Location	8/31/06	NA	Air	Berkshire Environmental	Particulate Matter	9/1/06

**TABLE 9-2  
TCLP DATA RECEIVED DURING AUGUST 2006**

**SOIL SAMPLING  
LYMAN STREET AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Sample ID: Sample Depth (Feet): Date Collected:	TCLP Regulatory Limits	TCLP-I9-4-14 0-3 8/17/2006	TCLP-I9-4-19 0-1 8/17/2006	TCLP-I9-4-19-25-203 0-3 8/17/2006	TCLP-I9-4-201-North 0-1 8/18/2006	TCLP-I9-4-201-South 0-6 8/18/2006
<b>Organochlorine Pesticides</b>						
Endrin	0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
Gamma-BHC (Lindane)	0.4	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
Heptachlor	0.008	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
Heptachlor Epoxide	0.008	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
Methoxychlor	10	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
Technical Chlordane	0.03	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)
Toxaphene	0.5	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
<b>Herbicides</b>						
2,4,5-TP	1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
2,4-D	10	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
<b>Inorganics</b>						
Arsenic	5	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)
Barium	100	0.766 B	0.683 B	1.46 B	0.568 B	1.17 B
Cadmium	1	0.00860 B	0.00930 B	0.00770 B	0.0115 B	0.00880 B
Chromium	5	ND(0.100)	ND(0.100)	ND(0.100)	ND(0.100)	0.0109 B
Lead	5	0.0913 B	15.8	0.237	17.8	0.570
Mercury	0.2	0.000121 B	0.000127 B	0.000144 B	0.000168 B	0.000131 B
Selenium	1	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)
Silver	5	0.00510 B	ND(0.100)	ND(0.100)	ND(0.100)	ND(0.100)

- Notes:**
1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of TCLP constituents.
  2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
  3. Shading indicates that value exceeds the TCLP Regulatory Limits.

**Data Qualifiers:**

**Inorganics**

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).

**TABLE 9-3  
 AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2006**

**PARTICULATE AMBIENT AIR CONCENTRATIONS  
 LYMAN STREET AREA  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**

Sampling Date <sup>2</sup>	Sampler Location	Average Site Concentration (mg/m <sup>3</sup> )	Background Site Concentration (mg/m <sup>3</sup> )	Average Period (Hours:Min)	Predominant Wind Direction
08/23/06	LY-1	0.019*	0.012*	10:45	WNW
	LY-2B	0.010*		4:45 <sup>3</sup>	
	LY-4	0.014*		10:45	
08/24/06	LY-1	0.007*	0.005*	10:15	Calm
	LY-2B	0.008*		10:45	
	LY-4	0.008*		11:00	
08/25/06	LY-1	0.015*	0.031*	10:45	Calm
	LY-2B	0.017*		11:00	
	LY-4	0.013*		10:45	
08/28/06	LY-1	0.028*	0.019*	10:30	Calm
	LY-2B	0.027*		10:45	
	LY-4	0.016*		10:45	
08/29/06	LY-1	0.023*	0.019*	10:45	Calm
	LY-2B	0.024*		10:45	
	LY-4	0.014*		10:45	
08/30/06	LY-1	0.008*	0.011*	11:00	NNW
	LY-2B	0.009*		10:30	
	LY-4	0.006*		10:45	
08/31/06	LY-1	0.012*	0.003*	11:00	Variable
	LY-2B	0.005*		11:00	
	LY-4	0.004*		11:00	
Notification Level		0.120			

Notes:

\* Measured with DR-2000 or DR-4000.

Background monitoring station is located east of Building 9B, between 9B and New York Avenue.

Predominant wind direction determined using hourly wind direction data from the Pittsfield Municipal Airport Weather Station.

<sup>1</sup> Monitoring was performed only on days when site activities occurred.

<sup>2</sup> The particulate monitors obtain real-time data. The sampling data were obtained by Berkshire Environmental Consultants, Inc. on the sampling date.

<sup>4</sup> Sampling period was shortened due to sampler location change.

**ITEM 10  
NEWELL STREET AREA I  
(GEC440)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

None

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

Completed restoration activities at Parcels J9-23-19, -20, and -21.

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Obtain survey of GE-owned strip of land adjacent to Housatonic River for use in connection with ERE.
- Submit revised drafts of EREs and associated survey plans for GE-owned properties to EPA and MDEP.
- Send letters to owners of properties with Conditional Solutions, as well as to holders of encumbrances on those properties, regarding the Conditional Solutions.
- Conduct semi-annual inspection of engineered barriers and restored and re-vegetated areas.
- Continue preparation of Final Completion Report.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**ITEM 11  
NEWELL STREET AREA II  
(GECD450)  
AUGUST 2006**

\* **All activities described below for this item were conducted pursuant to or in connection with the Consent Decree.**

**a. Activities Undertaken/Completed**

- Continued shipment of soil excavated from Parcel J9-23-8 to the selected disposal facility located in Port Arthur, Texas.
- Conducted wipe sampling of additional gondola railcars to support the shipment of soil excavated from Parcel J9-23-8 to the selected disposal facility located in Port Arthur, Texas.
- Completed paving work associated with installation of access road and turn-around area.
- Completed assembly of automated DNAPL recovery system for Newell Street Area II, and activated system on August 30, 2006 (see also Item 21.a).
- Conducted drum sampling at Building 78 of water from well development as identified in Table 11-1.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

Continue shipments of soil excavated from Parcel J9-23-8 to the selected disposal facility located in Port Arthur, Texas.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 11-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**NEWELL STREET AREA II  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Building 78 Drum Sampling	B0523-WATER-1	8/24/06	Water	SGS	PCB, VOC, SVOC, Total Metals	
Building 78 Drum Sampling	B0546-WATER-1	8/24/06	Water	SGS	PCB, VOC, SVOC, Total Metals	
Building 78 Drum Sampling	B1459-WATER-1	8/24/06	Water	SGS	PCB, VOC, SVOC, Total Metals	
Building 78 Drum Sampling	B1460-WATER-1	8/24/06	Water	SGS	PCB, VOC, SVOC, Total Metals	
Building 78 Drum Sampling	GMA1-27-WATER-1	8/24/06	Water	SGS	PCB, VOC, SVOC, Total Metals	
Gondola Wipe Sampling	CEFX-33490-W1R	8/24/06	Wipe	SGS	PCB	8/28/06
Gondola Wipe Sampling	CEFX-33490-W2R	8/24/06	Wipe	SGS	PCB	8/28/06
Gondola Wipe Sampling	CEFX-33490-W3R	8/24/06	Wipe	SGS	PCB	8/28/06
Gondola Wipe Sampling	CEFX-33490-W4R	8/24/06	Wipe	SGS	PCB	8/28/06
Gondola Wipe Sampling	CEFX-33490-W5R	8/24/06	Wipe	SGS	PCB	8/28/06
Gondola Wipe Sampling	MHFX-5735-W1R	8/22/06	Wipe	SGS	PCB	8/25/06
Gondola Wipe Sampling	MHFX-5735-W2R	8/22/06	Wipe	SGS	PCB	8/25/06
Gondola Wipe Sampling	MHFX-5735-W3R	8/22/06	Wipe	SGS	PCB	8/25/06
Gondola Wipe Sampling	MHFX-5735-W4R	8/22/06	Wipe	SGS	PCB	8/25/06
Gondola Wipe Sampling	MHFX-5735-W5R	8/22/06	Wipe	SGS	PCB	8/25/06
Newell Street Decon Water Sampling	Newell-Decon-1	7/10/06	Water	SGS	PCB, VOC, SVOC, Total Metals	8/2/06
Sampling Newell St. Well N2SC-01IR	N2SC-01IR-1	7/13/06	Water	SGS	PCB, VOC, SVOC, Total Metals	8/1/06
Sampling Newell St. Well N2SC-03IR	N2SC-03IR-1	7/13/06	Water	SGS	PCB, VOC, SVOC, Total Metals	8/1/06
Soil Sampling	NS-15R-Soil-1	7/6/06	Soil	SGS	PCB, TCLP	8/1/06



**TABLE 11-2  
PCB DATA RECEIVED DURING AUGUST 2006**

**SOIL SAMPLING  
NEWELL STREET AREA II  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Sample ID</b>	<b>Date Collected</b>	<b>Aroclor-1016, -1221, -1232, -1242, -1248</b>	<b>Aroclor-1254</b>	<b>Aroclor-1260</b>	<b>Total PCBs</b>
NS-15R-Soil-1	7/6/2006	ND(400)	520	ND(400)	520

Notes:

1. Sample was collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs and TCLP constituents.
2. Please refer to Table 11-3 for a summary of TCLP constituents.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**TABLE 11-3  
TCLP DATA RECEIVED DURING AUGUST 2006**

**SOIL SAMPLING  
NEWELL STREET AREA II  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>TCLP Regulatory Limits</b>	<b>NS-15R-Soil-1 7/6/2006</b>
<b>Volatile Organics</b>			
1,1-Dichloroethene		0.7	ND(0.010)
1,2-Dichloroethane		0.5	ND(0.010)
2-Butanone		200	ND(0.25)
Benzene		0.5	ND(0.010)
Carbon Tetrachloride		0.5	ND(0.010)
Chlorobenzene		100	ND(0.010)
Chloroform		6	ND(0.010)
Tetrachloroethene		0.7	ND(0.010)
Trichloroethene		0.5	0.022
Vinyl Chloride		0.2	ND(0.010)
<b>Semivolatile Organics</b>			
1,4-Dichlorobenzene		7.5	ND(0.010)
2,4,5-Trichlorophenol		400	ND(0.010)
2,4,6-Trichlorophenol		2	ND(0.010)
2,4-Dinitrotoluene		0.13	ND(0.010)
Cresol		200	ND(0.010)
Hexachlorobenzene		0.13	ND(0.010)
Hexachlorobutadiene		0.5	ND(0.010)
Hexachloroethane		3	ND(0.010)
Nitrobenzene		2	ND(0.010)
Pentachlorophenol		100	ND(0.050)
Pyridine		5	ND(0.010)
<b>Inorganics</b>			
Arsenic		5	ND(0.200)
Barium		100	0.557 B
Cadmium		1	ND(0.100)
Chromium		5	0.00570 B
Lead		5	0.203
Mercury		0.2	ND(0.000570)
Selenium		1	ND(0.200)
Silver		5	ND(0.100)

**Notes:**

1. Sample was collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs and TCLP constituents.
2. Please refer to Table 11-2 for a summary of PCBs.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**Data Qualifiers:**

**Inorganics**

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).

**TABLE 11-4  
WATER SAMPLE DATA RECEIVED DURING AUGUST 2006**

**SAMPLING NEWELL ST. WELLS  
NEWELL STREET AREA II  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>N2SC-01IR-1 07/13/06</b>	<b>N2SC-03IR-1 07/13/06</b>
<b>Volatile Organics</b>			
Chloroform		ND(0.64)	1.2 J
Ethylbenzene		0.15 J	ND(1.6)
Methylene Chloride		0.22 J	0.51 J
Toluene		0.81	0.82 J
Trichloroethene		6.6	42
Vinyl Chloride		0.27 J	ND(1.6)
<b>PCBs-Unfiltered</b>			
Aroclor-1254		58	430
Total PCBs		58	430
<b>Semivolatile Organics</b>			
1,2,4-Trichlorobenzene		6.2	11
1,2-Dichlorobenzene		0.14 J	0.18 J
1,4-Dichlorobenzene		0.84 J	0.49 J
Naphthalene		ND(1.0)	0.17 J
<b>Inorganics-Unfiltered</b>			
Arsenic		ND(0.0100)	0.0108
Barium		0.556	0.577
Cadmium		0.000890 B	0.00554 B
Chromium		0.0440	0.0355
Lead		0.184	1.57

Notes:

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

Data Qualifiers:

Organics (volatiles, semivolatiles)

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

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.

**TABLE 11-5  
WATER SAMPLE DATA RECEIVED DURING AUGUST 2006**

**DECON WATER SAMPLING  
NEWELL STREET AREA II  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	Newell-Decon-1 07/10/06
<b>Volatile Organics</b>		
None Detected		--
<b>PCBs-Unfiltered</b>		
Aroclor-1254		4.9
Total PCBs		4.9
<b>Semivolatile Organics</b>		
2-Methylnaphthalene		1.2 J
bis(2-Ethylhexyl)phthalate		1.7 J
Naphthalene		32
<b>Inorganics-Unfiltered</b>		
Arsenic		0.0308
Barium		0.617
Cadmium		0.0118
Chromium		0.0711
Lead		0.783
Mercury		0.000319
Selenium		0.0109 B
Silver		0.000510 B

Notes:

1. Sample was collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs, volatiles, semivolatiles, and metals.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. -- Indicates that all constituents for the parameter group were not detected.
4. Only detected constituents are summarized.

Data Qualifiers:

Organics (volatiles, semivolatiles)

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

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.

**TABLE 11-6  
PCB DATA RECEIVED DURING AUGUST 2006**

**GONDOLA WIPE SAMPLING  
NEWELL STREET AREA II  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in  $\mu\text{g}/100\text{cm}^2$ )**

Sample ID	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
CEFX-33490-W1R	8/24/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
CEFX-33490-W2R	8/24/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
CEFX-33490-W3R	8/24/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
CEFX-33490-W4R	8/24/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
CEFX-33490-W5R	8/24/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
MHFX-5735-W1R	8/22/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
MHFX-5735-W2R	8/22/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
MHFX-5735-W3R	8/22/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
MHFX-5735-W4R	8/22/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
MHFX-5735-W5R	8/22/2006	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

**Notes:**

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**ITEM 12  
FORMER OXBOW AREAS J & K  
(GECD420)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

None

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Plant trees and shrubs in remediated areas.
- Submit Addendum to Supplemental Information Package showing modified vegetation restoration plans as agreed with property owners.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**ITEM 13  
HOUSATONIC RIVER AREA  
UPPER ½ MILE REACH  
(GECD800)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- Monitored the three seepage meters in the river in support of upcoming evaluation and report on total organic carbon (TOC) content in the isolation layer.
- Performed the 2006 inspection of aquatic habitat enhancement structures and armor stone (August 23, 2006).
- Performed the 2006 inspection of restored bank vegetation (August 24, 2006).

**b. Sampling/Test Results Received**

See attached table.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Complete seepage meter monitoring.
- Prepare report presenting results of seepage meter study and evaluation of TOC content in isolation layer (to be submitted in Fall 2006).
- Prepare and submit report on inspection of restored bank vegetation
- Prepare and submit report on inspection of aquatic habitat enhancement structures and armor stone.
- Revise and resubmit report on July 2006 bank erosion inspection.
- Perform repairs related to erosion inspection.

**ITEM 13  
(cont'd)  
HOUSATONIC RIVER AREA  
UPPER ½ MILE REACH  
(GECD800)  
AUGUST 2006**

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

As noted above, GE plans to submit a report evaluating TOC content in the isolation layer in Fall 2006. The Final Completion Report for Upper ½ Mile Reach Removal Action will be submitted following EPA review and approval of that report.

**f. Proposed/Approved Work Plan Modifications**

None



**TABLE 13-1  
SEEPAGE METER MONITORING  
UPPER 1/2-MILE REACH OF THE HOUSATONIC RIVER  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

Location	Start Time	Starting Volume in Collection Bag (mL)	Time of Collection	End Volume in Collection Bag (mL)
Seepage-1	7/31/06 9:59 AM	200	8/2/06 9:13 AM	205
Seepage-1	8/2/06 9:13 AM	200	8/9/06 10:02 AM	206
Seepage-1	8/9/06 10:02 AM	200	8/21/06 10:43 AM	199
Seepage-2	7/31/06 10:33 AM	200	8/2/06 9:34 AM	203
Seepage-2	8/2/06 9:34 AM	200	8/9/06 10:30 AM	210
Seepage-2	8/9/06 10:30 AM	200	8/21/06 11:20 AM	--
Seepage-3	7/31/06 11:02 AM	200	8/2/06 10:05 AM	202
Seepage-3	8/2/06 10:05 AM	200	8/9/06 11:01 AM	203
Seepage-3	8/9/06 11:01 AM	200	8/21/06 12:04 PM	207

Note:

1. On 8/21/200, the water collection bag at Seepage-2 was observed to be leaking; a likely result of an abrasion on the bag caused by rubbing against the protective plastic cage; as such, on that date data at this location was not recorded.

**ITEM 14  
HOUSATONIC RIVER AREA  
1½ MILE REACH  
(GEC820)  
AUGUST 2006**

**(Note: This item is limited to activities conducted by GE and does not include EPA's work on the 1½ Mile Reach Removal Action)**

**a. Activities Undertaken/Completed**

On August 23, 2006, BBL (on GE's behalf) performed a round of water column monitoring at 10 locations along the Housatonic River between Coltsville, MA and Great Barrington, MA. Two of these locations are situated in the 1½ Mile Reach: Lyman Street Bridge (Location 4) and Pomeroy Avenue Bridge (Location 6A). A composite grab sample was collected at each location and submitted to Northeast Analytical for analysis of PCBs (total), TSS, POC, and chlorophyll-a, as identified in Table 14-1. (The other eight locations are discussed under Items 15 and 20 below.)

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

Continue Housatonic River monthly water column monitoring.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 14-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HOUSATONIC RIVER - 1 1/2 MILE REACH  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Monthly Water Column Sampling	Location-4	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-4	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-6A	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-6A	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	

**TABLE 14-2  
SAMPLE DATA RECEIVED DURING AUGUST 2006**

**MONTHLY WATER COLUMN SAMPLING  
HOUSATONIC RIVER - 1 1/2 MILE REACH  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(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	POC	TSS	Chlorophyll (a)
LOCATION-4	Lyman Street Bridge	07/26/06	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.230	1.20	0.0019
LOCATION-6A	Pomeroy Ave. Bridge	07/26/06	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.210	1.50	0.0024

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs, total suspended solids (TSS), particulate organic carbon (POC), and chlorophyll (a).
2. Sampling methods involved the collection of composite grab samples at each location, representative of three stations (25, 50, and 75 percent of the total river width at each location) at 50 percent of the total river depth at each station.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

**ITEM 15**  
**HOUSATONIC RIVER AREA**  
**REST OF THE RIVER**  
**(GECD850)**  
**AUGUST 2006**

**a. Activities Undertaken/Completed**

On August 23, 2006, BBL (on GE's behalf) performed a round of water column monitoring at 10 locations along the Housatonic River between Coltsville and Great Barrington, MA. Two locations are situated in the 1½ Mile Reach of the Housatonic River and were discussed in Item 14. One location is at the outlet of Silver Lake and is discussed in Item 20 below. Of the remaining seven locations, two are located upstream of the 1½ Mile Reach: Hubbard Avenue Bridge (Location 1) and Newell Street Bridge (Location 2). The five remaining locations are situated in the Rest of the River: Holmes Road Bridge (Location 7); New Lenox Road Bridge (Location 9); Woods Pond Headwaters (Location 10); Schweitzer Bridge (Location 12); and Division Street Bridge (Location 13). Sampling activities were performed at these locations on August 23, 2006 from downstream to upstream. Composite grab samples were collected at each location sampled and submitted to Northeast Analytical for analysis of PCBs (total), TSS, POC, and chlorophyll-a, as identified in Table 15-1.

**b. Sampling/Test Results**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue Housatonic River monthly water column monitoring.
- Prepare design drawings for installation of replacement gate at Rising Pond Dam.\*
- Submit plan to EPA and Lead Administrative Trustee (LAT) for placement of riprap in an area adjacent to Woods Pond Dam.\*

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 15-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**HOUSATONIC RIVER - REST OF RIVER  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Monthly Water Column Sampling	HR-D1 (Location-12)	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	HR-D1 (Location-12)	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-1	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-1	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-10	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-10	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-12	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-12	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-13	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-13	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-2	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-2	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-7	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06
Monthly Water Column Sampling	Location-7	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-9	8/23/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	Location-9	7/26/06	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/14/06

Note:

1. Field duplicate sample locations are presented in parenthesis.

**TABLE 15-2  
SAMPLE DATA RECEIVED DURING AUGUST 2006**

**MONTHLY WATER COLUMN SAMPLING  
HOUSATONIC RIVER - REST OF RIVER  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(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	POC	TSS	Chlorophyll (a)
LOCATION-1	Hubbard Avenue Bridge	07/26/06	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.364	1.60	0.00090
LOCATION-2	Newell Street Bridge	07/26/06	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.214	ND(1.00)	0.0014
LOCATION-7	Holmes Road Bridge	07/26/06	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.291	ND(1.00)	0.0021
LOCATION-9	New Lenox Road Bridge	07/26/06	ND(0.0000220)	0.0000290 PE	0.0000580 AF	0.0000410 AG	0.000128	0.280	2.40	0.0023
LOCATION-10	Headwaters of Woods Pond	07/26/06	ND(0.0000220)	0.0000450 PE	0.0000780 AF	0.0000530 AG	0.000176	0.445	4.40	0.0028
LOCATION-12	Schweitzer Bridge	07/26/06	ND(0.0000220)	0.0000340 PE	0.0000590 AF	0.0000400 AG	0.000133	0.499	2.90	0.0053
		07/26/06	[ND(0.0000220)]	[0.0000370 PE]	[0.0000690 AF]	[0.0000500 AG]	[0.000156]	[0.530]	[3.40]	[0.0065]
LOCATION-13	Division Street Bridge	07/26/06	ND(0.0000220)	ND(0.0000220)	0.0000260 AF	ND(0.0000220)	0.0000260	0.448	4.40	0.0020

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs, total suspended solids (TSS), particulate organic carbon (POC), and chlorophyll (a).
2. Sampling methods involved the collection of composite grab samples at each location, representative of three stations (25, 50, and 75 percent of the total river width at each location) at 50 percent of the total river depth at each station.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

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

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

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 PCBs present in a sample that has undergone environmental alteration.

**ITEMS 16 & 17  
HOUSATONIC RIVER FLOODPLAIN  
RESIDENTIAL AND NON-RESIDENTIAL  
PROPERTIES ADJACENT TO 1½-MILE REACH  
(GEC710 AND GEC720)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- Completed final restoration activities at certain Phase 3 floodplain properties.
- Continued restoration activities at Phase 4 floodplain properties.

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Complete restoration activities at Phase 4 floodplain properties.
- Conduct inspections of backfilled/restored areas at Phase 3 and Phase 4 floodplain properties.
- Submit Supplemental Investigation Plan for certain Phase 2 floodplain properties.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

EPA has advised GE that, instead of submitting separate Final Completion Reports for the Phase 1 and 2 floodplain properties, the Phase 3 floodplain properties, and the Phase 4 floodplain properties, GE should submit Final Completion Reports for the 1½ Mile Floodplain Residential Properties and the 1½ Mile Floodplain Non-Residential Properties, including all phases together.

**f. Proposed/Approved Work Plan Modifications**

None



**ITEM 18**  
**HOUSATONIC RIVER FLOODPLAIN**  
**CURRENT RESIDENTIAL PROPERTIES**  
**DOWNSTREAM OF CONFLUENCE**  
**(ACTUAL/POTENTIAL LAWNS)**  
**(GEC730)**  
**AUGUST 2006**

**a. Activities Undertaken/Completed**

None

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

None

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

Awaiting EPA approval of GE's Pre-Design Investigation Work Plan (submitted on February 26, 2002). (Based on discussions with EPA, this pre-design sampling will be deferred for some period of time.)\*

**f. Proposed/Approved Work Plan Modifications**

None

**ITEM 19  
ALLENDALE SCHOOL PROPERTY  
(GEC500)  
AUGUST 2006**

**a. Activities Undertaken/Completed**

None

**b. Sampling/Test Results Received**

None

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

Receive results from outdoor air monitoring conducted by EPA, as well as results from indoor sampling conducted by the Massachusetts Department of Public Health at Allendale School.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**ITEM 20  
OTHER AREAS  
SILVER LAKE AREA  
(GECD600)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- On August 23, 2006, BBL (on GE's behalf) performed a round of water column monitoring at 10 locations along the Housatonic River between Coltsville and Great Barrington, MA. One location was at the outlet of Silver Lake (Location 4A). A grab sample was collected and submitted to Northeast Analytical for analysis of PCBs (total) and TSS, as identified in Table 20-1. (The other nine locations were discussed under Items 14 and 15 above.)
- Began selection process for Remediation Contractor for Pilot Study.
- Collected soil samples from Parcel I9-9-19 for analysis or potential analysis for lead, as identified in Table 20-1.
- Collected samples of potential cap (isolation layer) materials from off-site sources for analysis of grain size and TOC (August 7, 22 and 25, 2006), as identified in Table 20-1.
- Collected sample of bank soil for TCLP analysis (August 28, 2006), as identified in Table 20-1.
- Conducted drum sampling at Building 78 of soil cuttings from Silver Lake Area, as identified in Table 20-1.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

- Submitted revised Pilot Study Work Plan for Silver Lake Sediments, along with response to discussions between GE and EPA and to EPA's July 18, 2006 conditional approval letter related to that work plan (August 16, 2006).
- Submitted letter to EPA proposing certain bank soil removal in conjunction with Pilot Study (August 22, 2006).

**ITEM 20  
(cont'd)  
OTHER AREAS  
SILVER LAKE AREA  
(GECD600)  
AUGUST 2006**

**d. Upcoming Scheduled Activities (next six weeks)**

- Select Remediation Contractor for Pilot Study of sediment capping and initiate implementation of Pilot Study.
- Perform bank soil removal in conjunction with Pilot Study.
- Submit next Pre-Design Investigation Report for Soils at properties adjacent to Silver Lake (due by September 11, 2006).

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

- Received EPA approval of August 16, 2006 revised Pilot Study Work Plan for Silver Lake Sediments (August 30, 2006).
- Received EPA conditional approval of August 22, 2006 proposal for certain bank soil removal in conjunction with Pilot Study (August 30, 2006).

**TABLE 20-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Additional PDI Soil Sampling	I9-9-19-DUP-1 (I9-9-19-SB-2-SS)	8/29/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SS	8/29/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SSE	8/31/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SSE	8/29/06	0-1	Soil	SGS	Lead	Cancelled
Additional PDI Soil Sampling	I9-9-19-SB-2-SSS	8/29/06	0-1	Soil	SGS	Lead	Cancelled
Additional PDI Soil Sampling	I9-9-19-SB-2-SSS	8/31/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SSSE	8/29/06	0-1	Soil	SGS	Lead	Cancelled
Additional PDI Soil Sampling	I9-9-19-SB-2-SSSE	8/31/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SSSS	8/29/06	0-1	Soil	SGS	Lead	Cancelled
Additional PDI Soil Sampling	I9-9-19-SB-2-SSSS	8/31/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SSSW	8/31/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-19-SB-2-SSSW	8/29/06	0-1	Soil	SGS	Lead	Cancelled
Additional PDI Soil Sampling	I9-9-19-SB-2-SSW	8/29/06	0-1	Soil	SGS	Lead	Cancelled
Additional PDI Soil Sampling	I9-9-19-SB-2-SSW	8/31/06	0-1	Soil	SGS	Lead	
Additional PDI Soil Sampling	I9-9-24-SB-2-SE	6/8/06	13-15	Soil	SGS	TAL Metals	8/21/06
Additional PDI Soil Sampling	I9-9-24-SB-2-SE	6/8/06	9-11	Soil	SGS	TAL Metals	8/21/06
Additional PDI Soil Sampling	I9-9-24-SB-2-SES	6/8/06	13-15	Soil	SGS	TAL Metals	8/21/06
Additional PDI Soil Sampling	I9-9-24-SB-2-SES	6/8/06	9-11	Soil	SGS	TAL Metals	8/21/06
Additional PDI Soil Sampling	I9-9-24-SB-2-W	6/8/06	13-15	Soil	SGS	TAL Metals	8/21/06
Additional PDI Soil Sampling	I9-9-24-SB-2-W	6/8/06	9-11	Soil	SGS	TAL Metals	8/21/06
Additional PDI Soil Sampling	SL-0606-DUP-3 (I9-9-24-SB-2-SE)	6/8/06	9-11	Soil	SGS	TAL Metals	8/21/06
Monthly Water Column Sampling	Location-4A	8/23/06	NA	Water	NEA	PCB, TSS	
Monthly Water Column Sampling	Location-4A	7/26/06	NA	Water	NEA	PCB, TSS	8/10/06
Silver Lake Pilot Study Isolation Layer Material Sampling	BGRAV-1	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	BGRAV-1	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	BGRAV-2	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	BGRAV-2	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	BGRAV-3	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	BGRAV-3	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Pond-Sand-1	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Pond-Sand-1	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Pond-Sand-2	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Pond-Sand-2	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Pond-Sand-3	8/25/06	NA	Sand	NEA	Grain Size	

**TABLE 20-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Pond-Sand-3	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Top-Soil-1	8/25/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Top-Soil-1	8/25/06	NA	Soil	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Top-Soil-2	8/25/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Top-Soil-2	8/25/06	NA	Soil	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Top-Soil-3	8/25/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Top-Soil-3	8/25/06	NA	Soil	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Wash-Sand-1	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Wash-Sand-1	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Wash-Sand-2	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Wash-Sand-2	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Wash-Sand-3	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Clark-Wash-Sand-3	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	FSAND-1	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	FSAND-1	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	FSAND-2	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	FSAND-2	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	FSAND-3	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	FSAND-3	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	LANEPOND-1	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	LANEPOND-1	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	LANEPOND-2	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	LANEPOND-2	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	LANEPOND-3	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	LANEPOND-3	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	LANETS-1	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	LANETS-1	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	LANETS-2	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	LANETS-2	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	LANETS-3	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	LANETS-3	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	POND-1	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	POND-1	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	POND-2	8/22/06	NA	Soil	NEA	Grain Size	

**TABLE 20-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Depth (feet)</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Silver Lake Pilot Study Isolation Layer Material Sampling	POND-2	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	POND-3	8/22/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	POND-3	8/22/06	NA	Soil	NEA	TOC	8/29/06
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-BANKSAND-1	8/7/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-BANKSAND-1	8/7/06	NA	Soil	NEA	TOC	8/17/06
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-BANKSAND-2	8/7/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-BANKSAND-2	8/7/06	NA	Soil	NEA	TOC	8/17/06
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-BANKSAND-3	8/7/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-BANKSAND-3	8/7/06	NA	Soil	NEA	TOC	8/17/06
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-TOPSOIL-1	8/7/06	NA	Soil	NEA	TOC	8/17/06
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-TOPSOIL-2	8/7/06	NA	Soil	NEA	TOC	8/17/06
Silver Lake Pilot Study Isolation Layer Material Sampling	SL-TOPSOIL-3	8/7/06	NA	Soil	NEA	TOC	8/17/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Loam-Sand-1	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Loam-Sand-1	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Loam-Sand-2	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Loam-Sand-2	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Loam-Sand-3	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Loam-Sand-3	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Nassau-Sand-1	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Nassau-Sand-1	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Nassau-Sand-2	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Nassau-Sand-2	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Nassau-Sand-3	8/25/06	NA	Sand	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Nassau-Sand-3	8/25/06	NA	Sand	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Top-Soil-1	8/25/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Top-Soil-1	8/25/06	NA	Soil	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Top-Soil-2	8/25/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Top-Soil-2	8/25/06	NA	Soil	NEA	TOC	8/31/06
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Top-Soil-3	8/25/06	NA	Soil	NEA	Grain Size	
Silver Lake Pilot Study Isolation Layer Material Sampling	Troy-Top-Soil-3	8/25/06	NA	Soil	NEA	TOC	8/31/06
Silver Lake TCLP Soil Sampling	RA4-PILOT	8/25/06	0-3	Soil	SGS	TCLP	
Soil Drum Sampling	BLDG78-F1751-0823	8/23/06	NA	Soil	SGS	PCB, TCLP	

**Note:**

1. Field duplicate sample locations are presented in parenthesis.

**TABLE 20-2  
SAMPLE DATA RECEIVED DURING AUGUST 2006**

**MONTHLY WATER COLUMN SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

<b>Sample ID</b>	<b>Location</b>	<b>Date Collected</b>	<b>Aroclor-1016, -1232, -1242</b>	<b>Aroclor 1221</b>	<b>Aroclor 1248</b>	<b>Aroclor 1254</b>	<b>Aroclor 1260</b>	<b>Total PCBs</b>	<b>TSS</b>
LOCATION-4A	Silver Lake Outlet	7/26/2006	ND(0.0000440)	0.000440 PB	0.000130 PE	0.0000650 AF	0.0000590 AG	0.000694	3.40

Notes:

1. Sample was collected by BBL, an ARCADIS company (BBL), and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs and total suspended solids (TSS).
2. Sampling methods involved the collection of single grab 50 percent of the total river width, and 50 percent of the total river depth.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

Data Qualifiers:

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

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

PB - Aroclor 1221 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1221 is not present in the sample, but is reported to more accurately quantify PCBs present in a sample that has undergone environmental alteration.

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 PCBs present in a sample that has undergone environmental alteration.



**TABLE 20-3  
DATA RECEIVED DURING AUGUST 2006**

**ADDITIONAL PRE-DESIGN INVESTIGATION SOIL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

	Sample ID:	I9-9-24-SB-2-SE
	Sample Depth (Feet):	13-15
Parameter	Date Collected:	06/08/06
<b>Inorganics</b>		
Cadmium		0.357 B

Notes:

1. This result has been revised by the laboratory and supersedes the result reported in Table 20-4 of the June 2006 CD Monthly Report.

Data Qualifiers:

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).

**TABLE 20-4  
TOC DATA RECEIVED DURING AUGUST 2006**

**SILVER LAKE PILOT STUDY ISOLATION LAYER MATERIAL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>BGRAV-1 08/22/06</b>	<b>BGRAV-2 08/22/06</b>	<b>BGRAV-3 08/22/06</b>	<b>CLARK-POND-SAND-1 08/25/06</b>	<b>CLARK-POND-SAND-2 08/25/06</b>	<b>CLARK-POND-SAND-3 08/25/06</b>	<b>CLARK-TOP-SOIL-1 08/25/06</b>
<b>Total Organic Carbon</b>								
TOC - Replicate 1		3600	2800	1900	4600	4600	3100	19000
TOC - Replicate 2		2800	2800	2900	2700	4900	6000	15000
TOC - Replicate 3		2000	2200	1900	3200	6500	5500	16000
TOC - Replicate 4		2100	NA	2200	2800	NA	3500	NA
TOC - Average		2600	2600	2200	3300	5300	4500	17000
TOC - % RSD		28	14	22	27	19	32	14

**TABLE 20-4  
TOC DATA RECEIVED DURING AUGUST 2006**

**SILVER LAKE PILOT STUDY ISOLATION LAYER MATERIAL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>CLARK-TOP-SOIL-2 08/25/06</b>	<b>CLARK-TOP-SOIL-3 08/25/06</b>	<b>CLARK-WASH-SAND-1 08/25/06</b>	<b>CLARK-WASH-SAND-2 08/25/06</b>	<b>CLARK-WASH-SAND-3 08/25/06</b>	<b>FSAND-1 08/22/06</b>
<b>Total Organic Carbon</b>							
TOC - Replicate 1		24000	59000	670	3100	1400	7100
TOC - Replicate 2		20000	22000	1300	1600	2100	1800
TOC - Replicate 3		30000	26000	1500	1600	2500	3600
TOC - Replicate 4		NA	23000	2000	1600	2300	2000
TOC - Average		25000	32000	1400	2000	2000	3600
TOC - % RSD		19	55	40	37	24	67

**TABLE 20-4  
TOC DATA RECEIVED DURING AUGUST 2006**

**SILVER LAKE PILOT STUDY ISOLATION LAYER MATERIAL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>FSAND-2 08/22/06</b>	<b>FSAND-3 08/22/06</b>	<b>LANEPOND-1 08/22/06</b>	<b>LANEPOND-2 08/22/06</b>	<b>LANEPOND-3 08/22/06</b>	<b>LANETS-1 08/22/06</b>	<b>LANETS-2 08/22/06</b>	<b>LANETS-3 08/22/06</b>	<b>POND-1 08/22/06</b>
<b>Total Organic Carbon</b>										
TOC - Replicate 1		4900	2000	3000	1800	3700	10000	4800	6900	2900
TOC - Replicate 2		2400	2200	2800	4500	9600	8700	9600	5300	9100
TOC - Replicate 3		1400	2000	2000	2900	10000	7900	5300	3900	3500
TOC - Replicate 4		5200	NA	NA	2300	2300	NA	4000	3900	4000
TOC - Average		3500	2100	2600	2900	6400	8900	5900	5000	4900
TOC - % RSD		55	4.8	22	41	63	12	42	29	59

**TABLE 20-4  
TOC DATA RECEIVED DURING AUGUST 2006**

**SILVER LAKE PILOT STUDY ISOLATION LAYER MATERIAL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>POND-2 08/22/06</b>	<b>POND-3 08/22/06</b>	<b>SL-BANKSAND-1 08/07/06</b>	<b>SL-BANKSAND-2 08/07/06</b>	<b>SL-BANKSAND-3 08/07/06</b>	<b>SL-TOPSOIL-1 08/07/06</b>	<b>SL-TOPSOIL-2 08/07/06</b>	<b>SL-TOPSOIL-3 08/07/06</b>
<b>Total Organic Carbon</b>									
TOC - Replicate 1		2400	3900	2900	2700	2200	13000	12000	14000
TOC - Replicate 2		2200	4400	3600	790	2500	12000	16000	15000
TOC - Replicate 3		3000	3800	3600	3600	2900	12000	12000	14000
TOC - Replicate 4		NA	NA	NA	1200	NA	NA	NA	NA
TOC - Average		2500	4000	3400	2100	2500	12000	14000	14000
TOC - % RSD		16	7.6	12	63	15	4.3	16	5.2

**TABLE 20-4  
TOC DATA RECEIVED DURING AUGUST 2006**

**SILVER LAKE PILOT STUDY ISOLATION LAYER MATERIAL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>TROY-LOAM-SAND-1 08/25/06</b>	<b>TROY-LOAM-SAND-2 08/25/06</b>	<b>TROY-LOAM-SAND-3 08/25/06</b>	<b>TROY-NASSAU-SAND-1 08/25/06</b>	<b>TROY-NASSAU-SAND-2 08/25/06</b>
<b>Total Organic Carbon</b>						
TOC - Replicate 1		1200	1700	1600	710	1000
TOC - Replicate 2		1300	1600	1100	1800	750
TOC - Replicate 3		950	880	1200	700	750
TOC - Replicate 4		NA	1500	NA	700	NA
TOC - Average		1200	1400	1300	980	830
TOC - % RSD		17	26	23	57	17

**TABLE 20-4  
TOC DATA RECEIVED DURING AUGUST 2006**

**SILVER LAKE PILOT STUDY ISOLATION LAYER MATERIAL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>TROY-NASSAU-SAND-3 08/25/06</b>	<b>TROY-TOP-SOIL-1 08/25/06</b>	<b>TROY-TOP-SOIL-2 08/25/06</b>	<b>TROY-TOP-SOIL-3 08/25/06</b>
<b>Total Organic Carbon</b>					
TOC - Replicate 1		910	11000	5400	7200
TOC - Replicate 2		830	6600	7000	6600
TOC - Replicate 3		310	15000	12000	5500
TOC - Replicate 4		1200	13000	7400	NA
TOC - Average		810	11000	8000	6400
TOC - % RSD		45	33	36	14

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to Northeast Analytical, Inc. for analysis of total organic carbon (TOC).
2. % RSD - Percent relative standard deviation.
3. NA - Not Analyzed - TOC Replicate 4 is only analyzed and reported by laboratory when the % RSD of Replicate 1 thru Replicate 3 is greater than 25%.

**TABLE 20-5  
DATA RECEIVED DURING AUGUST 2006**

**ADDITIONAL PRE-DESIGN INVESTIGATION SOIL SAMPLING  
SILVER LAKE AREA  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in dry weight parts per million, ppm)**

Sample ID: Sample Depth (Feet): Date Collected:	9-9-24-SB-2-SE 9-11 06/08/06	9-9-24-SB-2-SE 13-15 06/08/06	9-9-24-SB-2-SES 9-11 06/08/06	9-9-24-SB-2-SES 13-15 06/08/06	9-9-24-SB-2-W 9-11 06/08/06	9-9-24-SB-2-W 13-15 06/08/06
<b>Inorganics</b>						
Aluminum	1760 [3270]	4930	4230	4630	7360	7560
Antimony	38.1 [8.85 B]	1.56 B	3.32 B	1.83 B	2.09 B	1.42 B
Arsenic	5.68 [11.4]	18.4	6.54	4.93	2.68	3.02
Barium	557 [1140]	100	168	75.0	182	47.9
Beryllium	0.196 B [0.358 B]	0.521 B	0.255 B	0.202 B	0.240 B	0.340 B
Cadmium	--	--	--	--	--	--
Calcium	1380 [5020]	117000	16700	11600	9780	7450
Chromium	--	--	--	--	--	--
Cobalt	4.55 [2.65]	12.5	4.49	3.54	6.24	5.61
Copper	--	--	--	--	--	--
Iron	6130 [10200]	16300	49300	26400	28200	45400
Lead	153 [313]	1400	1060	206	575	102
Magnesium	381 [622]	6260	1780	1510	2950	1470
Manganese	3660 [15200]	1080	479	337	299	521
Mercury	0.0890 [0.118]	0.889	0.560	0.472	4.73	0.213
Nickel	3.82 [7.06]	76.6	23.4	12.8	19.6	13.8
Potassium	1160 [488]	927	446	385	310	399
Selenium	2.08 B [7.01]	2.78 B	0.812 B	1.25 B	ND(2.69)	ND(2.27)
Silver	0.724 B [3.02]	1.57 B	ND(1.65)	ND(1.71)	ND(1.34)	ND(1.14)
Sodium	2130 [884]	1100	653	665	148	134
Thallium	1.11 B [17.2]	0.950 B	ND(1.65)	ND(1.71)	ND(1.34)	ND(1.14)
Vanadium	7.76 [15.3]	20.2	13.7	8.38 B	13.6	13.5
Zinc	3410 [10900]	798	2030	154	197	62.6

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of metals.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. -- Analytical results for cadmium, chromium and copper have been previously reported in Table 20-4 of the June 2006 CD Monthly Report and Table 20-3 of the July 2006 CD Monthly Report.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitation limit (PQL).



**ITEM 21  
GROUNDWATER MANAGEMENT AREAS  
PLANT SITE 1 (GMA 1)  
(GECD310)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

**General:**

- Conducted routine groundwater elevation and NAPL monitoring activities.
- Conducted drum sampling at Building 78 of monitoring well purge water, as identified in Table 21-1.

**East Street Area 1-North and South:**

- Continued automated groundwater and NAPL pumping at North Side and South Side Caissons. Approximately 1 gallon of LNAPL was recovered from the North Side Caisson in August. No LNAPL was recovered from the South Side Caisson in August.
- Continued routine well monitoring and manual NAPL removal activities. Approximately 0.018 liter (0.005 gallon) of LNAPL was removed from this area during August.

**East Street Area 2-South:**

- Continued automated groundwater and LNAPL removal activities. A total of approximately 4,564,836 gallons of groundwater was recovered from pumping systems 64R, 64S, 64V, 64X, RW-1(S), RW-1(X), and RW-2(X). In addition, approximately 955 gallons of LNAPL were removed from pumping systems 64R, 64V, RW-1(S), RW-1(X), 64X, and 64S Caisson.
- Continued automated DNAPL removal activities. Approximately 37 gallons of DNAPL were removed from pumping system RW-3(X) during August.
- Continued routine well monitoring and manual NAPL removal activities. Approximately 10.895 liters (2.875 gallons) of LNAPL were removed from wells in this area during August. Approximately 4.214 liters (1.112 gallons) of DNAPL were removed from wells in this area during August.
- Treated/discharged 3,864,995 gallons of water through 64G Groundwater Treatment Facility.

**East Street Area 2-North:**

- Continued well monitoring and NAPL removal activities. No LNAPL was recovered from this area during August.

**ITEM 21  
(cont'd)  
GROUNDWATER MANAGEMENT AREAS  
PLANT SITE 1 (GMA 1)  
(GEC310)  
AUGUST 2006**

**a. Activities Undertaken/Completed (cont'd)**

**East Street Area 2-North: (cont'd)**

- Well A7 was decommissioned after being damaged during utility excavation activities on August 23, 2006. This well is not utilized as part of GE's current groundwater or NAPL monitoring programs.

**20s, 30s, and 40s Complexes:**

- Continued well monitoring and NAPL removal activities. No LNAPL was recovered from this area during August.

**Lyman Street Area:**

- Continued automated groundwater and NAPL removal activities. A total of approximately 216,359 gallons of groundwater was recovered from pumping systems RW-1R, RW-2, and RW-3. No LNAPL was removed from the automated recovery systems during August.
- Continued routine well monitoring and NAPL removal activities. Approximately 0.247 liter (0.065 gallon) of LNAPL was removed from wells in this area during August. Approximately 1.123 liters (0.296 gallons) of DNAPL were removed from wells in this area during August.

**Newell Street Area II:**

- Continued routine well monitoring and NAPL removal activities. Approximately 6.015 liters (1.587 gallons) of DNAPL were recovered from this area during August. No LNAPL was recovered from this area during August.
- Completed assembly of automated DNAPL recovery system for Newell Street Area II, and activated system on August 30, 2006.

**Silver Lake Area:**

- Continued routine monitoring of staff gauge in lake.

**ITEM 21**  
**(cont'd)**  
**GROUNDWATER MANAGEMENT AREAS**  
**PLANT SITE 1 (GMA 1)**  
**(GEC310)**  
**AUGUST 2006**

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

Submitted NAPL Monitoring Report for Spring 2006 (August 30, 2006).

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue routine monitoring activities.
- Repair/replace wells that were damaged during Newell Street Area II Removal Action.
- Conduct LNAPL bail-down test at well 25R.
- Evaluate potential additional groundwater/LNAPL recovery measures at the former scrapyard area at East Street Area 2-South and present the results in a letter to EPA by October 30, 2006.
- Remove/replace/modify selected wells on the 20s and 30s Complexes per GE's approved May 22, 2006 proposal.
- Remove oil skimmer from well 40R and place a new skimmer in well GMA1-17W, following EPA approval of GE's proposal.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 21-2  
 AUTOMATED LNAPL & GROUNDWATER RECOVERY SYSTEMS MONTHLY SUMMARY  
 EAST STREET AREA 1 - NORTH & SOUTH  
 GROUNDWATER MANAGEMENT AREA 1**

**CONSENT DECREE MONTHLY STATUS REPORT  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
 August 2006**

<b>Caisson</b>	<b>Month</b>	<b>Vol. LNAPL Collected (gallon)</b>	<b>Vol. Water Recovered (gallon)</b>	<b>Percent Downtime</b>
Northside	August 2005	1.0	16,000	
	September 2005	4.0	10,400	4.91
	October 2005	24.0	8,900	26.34
	November 2005	4.0	52,000	
	December 2005	12.0	33,900	
	January 2006	1.0	44,300	
	February 2006	1.0	27,700	
	March 2006	5.0	26,800	0.71
	April 2006	0.0	17,500	
	May 2006	0.0	20,500	
	June 2006	0.0	51,700	
	July 2006	0.0	18,500	
	August 2006	1.0	21,700	
Southside	August 2005	1.0	37,100	
	September 2005	9.0	56,300	4.91
	October 2005	4.0	71,000	4.91
	November 2005	2.0	96,600	
	December 2005	0.0	112,800	
	January 2006	15.0	98,400	
	February 2006	0.0	98,500	
	March 2006	3.0	121,500	0.71
	April 2006	12.0	76,200	
	May 2006	12.0	73,500	
	June 2006	0.0	160,900	
	July 2006	0.0	58,900	
	August 2006	0.0	84,900	

**TABLE 21-3  
 MEASUREMENT AND REMOVAL OF RECOVERABLE LNAPL  
 EAST STREET AREA 1 - NORTH & SOUTH  
 GROUNDWATER MANAGEMENT AREA 1  
 CONSENT DECREE MONTHLY STATUS REPORT  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
 August 2006**

<b>Well Name</b>	<b>Date</b>	<b>Depth to Water (ft BMP)</b>	<b>Depth to LNAPL (ft BMP)</b>	<b>LNAPL Thickness (feet)</b>	<b>LNAPL Removed (liters)</b>	<b>August 2006 Removal (liters)</b>
34	8/22/06	6.22	6.20	0.02	0.012	0.012
72	8/22/06	6.92	6.91	0.01	0.006	0.006

**Total Manual LNAPL Removal for August 2006: 0.018 liters  
 0.005 gallons**

Note:

1. ft BMP - feet Below Measuring Point.

**TABLE 21-4  
ROUTINE WELL MONITORING  
EAST STREET AREA 1 - NORTH & SOUTH  
GROUNDWATER MANAGEMENT AREA 1  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
<b>GMA 1 - East Street Area 1 - North</b>									
North Caisson	997.84	8/2/06	18.26	18.25	0.01	---	19.80	0.00	979.59
North Caisson	997.84	8/9/06	18.14	18.13	0.01	---	19.80	0.00	979.71
North Caisson	997.84	8/16/06	18.21	18.20	0.01	---	19.80	0.00	979.64
North Caisson	997.84	8/21/06	18.29	18.28	0.01	---	19.80	0.00	979.56
North Caisson	997.84	8/30/06	18.60	18.59	0.01	---	19.80	0.00	979.25
<b>GMA 1 - East Street Area 1 - South</b>									
31R	1,000.23	8/22/06	9.60	---	0.00	---	15.04	0.00	990.63
33	999.50	8/22/06	6.90	---	0.00	---	21.30	0.00	992.60
34	999.90	8/22/06	6.22	6.20	0.02	---	21.04	0.00	993.70
72	1000.62	8/22/06	6.92	6.91	0.01	---	21.95	0.00	993.71
72R	1000.92	8/22/06	6.80	---	0.00	---	13.30	0.00	994.12
South Caisson	1001.11	8/2/06	11.78	11.77	0.01	---	15.00	0.00	989.34
South Caisson	1001.11	8/9/06	12.14	P	< 0.01	---	15.00	0.00	988.97
South Caisson	1001.11	8/16/06	13.35	13.34	0.01	---	15.00	0.00	987.77
South Caisson	1001.11	8/21/06	14.05	14.00	0.05	---	15.00	0.00	987.11
South Caisson	1001.11	8/30/06	14.00	13.93	0.07	---	15.00	0.00	987.18

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. P indicates that NAPL is present at a thickness < 0.01 feet, the corresponding thickness is recorded as such.

**TABLE 21-5  
AUTOMATED LNAPL/DNAPL & GROUNDWATER RECOVERY SYSTEMS  
EAST STREET AREA 2 - SOUTH  
GROUNDWATER MANAGEMENT AREA 1  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS  
August 2006**

Recovery System Location	Month	Oil Collected (gallon)	Water Recovered (gallon)	Percent Downtime
40R	August 2005	0		
	September 2005	0		
	October 2005	0		
	November 2005	0		
	December 2005	0		
	January 2006	0		
	February 2006	0		
	March 2006	0		
	April 2006	0		
	May 2006	0		
	June 2006	0		
	July 2006	0		
	August 2006	0		
64R	August 2005	250	73,300	
	September 2005	50	10,200	4.91
	October 2005	75	492,200	10.71
	November 2005	125	988,100	
	December 2005	400	1,062,900	
	January 2006	400	896,700	
	February 2006	375	899,800	
	March 2006	150	170,611	0.71
	April 2006	75	375,609	
	May 2006	75	435,398	
	June 2006	550	720,359	
	July 2006	250	345,697	
	August 2006	25	38,948	
64S System	August 2005	218	271,691	13.73 - Maintenance
	September 2005	321	172,650	4.91
	October 2005	82	541,419	10.71
	November 2005	324	1,014,521	
	December 2005	170	927,871	
	January 2006	245	1,080,795	
	February 2006	673	1,304,005	
	March 2006	1,285	1,078,733	2.14
	April 2006	558	696,282	5.36
	May 2006	51	668,110	1.79
	June 2006	327	1,061,071	0.93
	July 2006	472	732,853	0.93
	August 2006	238	646,128	
64V <sup>1</sup>	August 2005	581	993,100	
	September 2005	349	714,700	4.91
	October 2005	564	933,400	4.91
	November 2005	515	1,304,100	
	December 2005	564	1,117,000	
	January 2006	697	1,208,800	
	February 2006	598	1,177,900	
	March 2006	315	1,251,800	0.71
	April 2006	249	901,800	
	May 2006	431	911,700	
	June 2006	697	1,228,300	
	July 2006	548	885,300	
	August 2006	548	1,016,400	

**TABLE 21-5**  
**AUTOMATED LNAPL/DNAPL & GROUNDWATER RECOVERY SYSTEMS**  
**EAST STREET AREA 2 - SOUTH**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**  
**August 2006**

Recovery System Location	Month	Oil Collected (gallon)	Water Recovered (gallon)	Percent Downtime
64X	August 2005	20	489,600	21.43
	September 2005	25	403,200	
	October 2005	25	403,200	
	November 2005	0	489,600	
	December 2005	6	417,600	0.71
	January 2006	1	417,600	
	February 2006	1	388,800	
	March 2006	1	504,000	
	April 2006	1	403,200	
	May 2006	83	403,200	
	June 2006	14	518,400	
	July 2006	28	388,800	
	August 2006	127	504,000	
	RW-2(X)	August 2005	0	
September 2005		0	721,200	
October 2005		0	529,600	
November 2005		0	573,600	
December 2005		0	491,800	0.71
January 2006		0	710,700	
February 2006		0	1,288,600	
March 2006		0	1,081,726	
April 2006		10	408,494	
May 2006		0	652,543	
June 2006		0	1,463,805	
July 2006		0	1,076,551	
August 2006		0	1,146,830	
RW-1(S) <sup>2</sup>		August 2005	32	
	September 2005	4	527,699	
	October 2005	43	783,765	0.71
	November 2005	42	1,103,548	
	December 2005	40	900,898	
	January 2006	30	270,228	
	February 2006	27	1,042,895	
	March 2006	40	1,049,702	
	April 2006	57	736,984	
	May 2006	77	744,621	
	June 2006	59	935,039	
	July 2006	28	722,887	
	August 2006	17	741,315	4.63
RW-1(X)	August 2005	0	142,000	4.91
	September 2005	0	80,000	
	October 2005	0	299,300	
	November 2005	0	390,700	
	December 2005	0	324,500	0.71
	January 2006	0	417,500	
	February 2006	0	381,500	
	March 2006	0	119,720	
	April 2006	0	403,940	
	May 2006	0	385,828	
	July 2006	0	561,633	
	June 2006	0	369,041	
	August 2006	0	471,215	



**TABLE 21-5  
 AUTOMATED LNAPL/DNAPL & GROUNDWATER RECOVERY SYSTEMS  
 EAST STREET AREA 2 - SOUTH  
 GROUNDWATER MANAGEMENT AREA 1  
 CONSENT DECREE MONTHLY STATUS REPORT  
 GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS  
 August 2006**

Recovery System Location	Month	Oil Collected (gallon)	Water Recovered (gallon)	Percent Downtime
RW-3(X)	August 2005	51		11.76 - Maintenance
	September 2005	40		
	October 2005	19		35.71
	November 2005	51		5.88
	December 2005	31		
	January 2006	27		
	February 2006	20		
	March 2006	36		
	April 2006	29		
	May 2006	29		
	June 2006	42		
	July 2006	28		
	August 2006	37		

Summary of Total Automated Removal		
<b>Water:</b>	<b>4,564,836</b>	<b>Gallons</b>
<b>LNAPL:</b>	<b>955</b>	<b>Gallons</b>
<b>DNAPL:</b>	<b>37</b>	<b>Gallons</b>

Notes:

1. The flow meter at recovery well 64V was reset in December 2004.
2. The flow meter at recovery well RW-1(S) was reset in January 2006.
3. The flow meters at recovery wells RW-1(X), RW-2(X), 64X(W), and 64R were reset in March 2006.

**TABLE 21-6  
WELL MONITORING AND RECOVERY OF LNAPL  
EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES  
GROUNDWATER MANAGEMENT AREA 1  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

Well Name	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	LNAPL Removed (liters)	August 2006 Removal (liters)
13	8/21/06	18.22	18.10	0.12	0.074	0.074
14	8/21/06	18.38	18.15	0.23	0.142	0.142
25R	8/21/06	25.85	20.66	5.19	3.202	3.202
48	8/21/06	17.75	16.00	1.75	1.080	1.080
55	8/21/06	17.50	16.70	0.80	0.494	0.494
95-04R	7/14/06	14.81	13.74	1.07	2.600	4.430
	8/21/06	15.00	14.30	0.70	1.730	
	7/14/06	18.13	18.11	0.02	0.050	
	8/21/06	19.26	19.24	0.02	0.049	
GMA1-15	8/21/06	15.98	15.61	0.37	0.228	0.228
GMA1-16	8/21/06	14.10	13.66	0.44	0.271	0.271
GMA1-17W	8/21/06	17.15	15.65	1.50	0.308	0.308
GMA1-19	8/2/06	12.10	11.35	0.75	0.463	0.666
	8/9/06	11.53	11.51	0.02	0.012	
	8/16/06	11.90	11.65	0.25	0.154	
	8/21/06	11.48	11.45	0.03	0.019	
	8/29/06	11.72	11.51	0.21	0.019	

**Total LNAPL Removal East Street Area 2 - South for August 2006: 10.895 liters  
2.875 gallons**

**Total LNAPL Removal for August 2006: 10.895 liters  
2.875 gallons**

Note:

1. ft BMP - feet Below Measuring Point.

**TABLE 21-7**  
**WELL MONITORING AND RECOVERY OF DNAPL**  
**EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Date	Depth to Water (ft BMP)	Depth to DNAPL (ft BMP)	DNAPL Thickness (feet)	DNAPL Removed (liters)	August 2006 Removal (liters)
E2SC-03I	8/21/06	9.90	35.50	6.83	4.214	4.214

**Total DNAPL Removal East Street Area 2 - South for August 2006: 4.214 liters**  
**1.112 gallons**

**Total DNAPL Removal for August 2006: 4.214 liters**  
**1.112 gallons**

Note:

1. ft BMP - feet Below Measuring Point

**TABLE 21-8**  
**64G TREATMENT PLANT DISCHARGE DATA**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

<b>Date</b>	<b>Housatonic River Discharge (gallons)</b>	<b>Recharge Pond Discharge (gallons)</b>	<b>Total Discharge (gallons)</b>
August 2005	2,778,090	356,961	3,135,051
September 2005	2,537,520	335,710	2,873,230
October 2005	5,156,510	177,795	5,334,305
November 2005	5,221,180	163,951	5,385,131
December 2005	5,678,290	104,185	5,782,475
January 2006	6,317,250	89,159	6,406,409
February 2006	8,371,400	114,659	8,486,059
March 2006	5,301,850	200,184	5,502,034
April 2006	4,830,590	255,870	5,086,460
May 2006	5,110,840	263,791	5,374,631
June 2006	5,067,810	293,825	5,361,635
July 2006	4,631,550	348,554	4,980,104
August 2006	3,542,620	322,375	3,864,995

After treatment, the majority of the water processed at GE's Building 64G groundwater treatment facility is discharged to the Housatonic River through NPDES permitted Outfall 005. However, as part of GE's overall efforts to contain NAPL within the site and to optimize NAPL recovery operations, a portion of the treated water discharged from the 64G facility is routed to GE's on-site recharge pond located in East Street Area 2-South.

**TABLE 21-9**  
**ROUTINE WELL MONITORING**  
**EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
<b>East Street Area 2 - South</b>									
13	990.88	8/21/06	18.22	18.10	0.12	---	22.50	0.00	972.77
14	991.61	8/21/06	18.38	18.15	0.23	---	25.60	0.00	973.44
19	983.59	8/2/06	11.40	---	0.00	---	18.30	0.00	972.19
19	983.59	8/9/06	11.45	---	0.00	---	18.23	0.00	972.14
19	983.59	8/16/06	11.60	---	0.00	---	18.20	0.00	971.99
19	983.59	8/21/06	11.20	---	0.00	---	18.20	0.00	972.39
19	983.59	8/29/06	11.52	---	0.00	---	18.15	0.00	972.07
25R	998.31	8/21/06	25.85	20.66	5.19	---	30.75	0.00	977.29
26RR	1,000.58	1/0/00	22.41	22.25	0.16	---	28.49	0.00	978.32
40R	991.60	8/2/06	17.40	---	0.00	---	NM	0.00	974.20
40R	991.60	8/9/06	17.70	---	0.00	---	NM	0.00	973.90
40R	991.60	8/16/06	16.55	---	0.00	---	NM	0.00	975.05
40R	991.60	8/21/06	18.05	---	0.00	---	NM	0.00	973.55
40R	991.60	8/30/06	18.20	---	0.00	---	NM	0.00	973.40
48	992.39	8/21/06	17.75	16.00	1.75	---	22.68	0.00	976.27
49R	988.71	8/21/06	15.80	---	0.00	---	24.89	0.00	972.91
49RR	989.80	8/21/06	16.90	---	0.00	---	23.04	0.00	972.90
55	989.45	8/21/06	17.50	16.70	0.80	---	30.04	0.00	972.69
64R	993.37	8/2/06	16.08	16.06	0.02	---	20.50	0.00	977.31
64R	993.37	8/9/06	16.04	16.03	0.01	---	20.50	0.00	977.34
64R	993.37	8/16/06	16.06	P	< 0.01	---	20.50	0.00	977.31
64R	993.37	8/21/06	16.30	16.29	0.01	---	20.50	0.00	977.08
64R	993.37	8/30/06	16.18	P	< 0.01	---	20.50	0.00	977.19
64S	984.48	8/2/06	19.25	P	< 0.01	---	28.70	0.00	965.23
64S	984.48	8/9/06	19.23	P	< 0.01	---	28.70	0.00	965.25
64S	984.48	8/16/06	19.30	---	0.00	---	28.70	0.00	965.18
64S	984.48	8/21/06	19.20	P	< 0.01	---	28.70	0.00	965.28
64S	984.48	8/30/06	19.30	P	< 0.01	---	28.70	0.00	965.18
64S-Caisson	NA	8/2/06	10.68	10.66	0.02	---	14.55	0.00	NA
64S-Caisson	NA	8/9/06	11.00	10.95	0.05	---	14.55	0.00	NA
64S-Caisson	NA	8/16/06	11.00	10.98	0.02	---	14.55	0.00	NA
64S-Caisson	NA	8/21/06	10.40	P	< 0.01	---	14.55	0.00	NA
64S-Caisson	NA	8/30/06	10.77	10.75	0.02	---	14.55	0.00	NA
64V	987.29	8/2/06	21.80	21.50	0.30	---	29.60	0.00	965.77
64V	987.29	8/9/06	22.00	21.70	0.30	---	29.60	0.00	965.57
64V	987.29	8/16/06	21.80	21.70	0.10	P	29.60	< 0.01	965.58
64V	987.29	8/21/06	21.90	21.70	0.20	---	29.60	0.00	965.58
64V	987.29	8/30/06	21.90	21.50	0.40	---	29.60	0.00	965.76
64X(N)	984.83	8/2/06	12.60	P	< 0.01	---	15.85	0.00	972.23
64X(N)	984.83	8/9/06	12.75	P	< 0.01	---	15.85	0.00	972.08
64X(N)	984.83	8/16/06	12.95	12.94	0.01	---	15.85	0.00	971.89
64X(N)	984.83	8/21/06	12.34	12.33	0.01	---	15.85	0.00	972.50
64X(N)	984.83	8/30/06	12.61	12.60	0.01	---	15.85	0.00	972.23
64X(S)	981.56	8/2/06	16.05	15.90	0.15	---	23.82	0.00	965.65
64X(S)	981.56	8/9/06	16.10	16.00	0.10	---	23.82	0.00	965.55
64X(S)	981.56	8/16/06	16.40	16.33	0.07	---	23.82	0.00	965.23

**TABLE 21-9**  
**ROUTINE WELL MONITORING**  
**EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
64X(S)	981.56	8/21/06	15.25	15.15	0.10	---	23.82	0.00	966.40
64X(S)	981.56	8/30/06	15.50	15.45	0.05	---	23.82	0.00	966.11
64X(W)	984.87	8/2/06	19.13	19.10	0.03	---	24.35	0.00	965.77
64X(W)	984.87	8/9/06	19.29	19.28	0.01	---	24.35	0.00	965.59
64X(W)	984.87	8/16/06	19.50	19.47	0.03	---	24.35	0.00	965.40
64X(W)	984.87	8/21/06	18.40	18.38	0.02	---	24.35	0.00	966.49
64X(W)	984.87	8/30/06	18.75	18.73	0.02	---	24.35	0.00	966.14
95-01	983.77	8/21/06	10.95	---	0.00	---	17.25	0.00	972.82
95-04R	988.70	7/14/06	14.81	13.74	1.07	---	22.15	0.00	974.89
95-04R	988.70	8/21/06	15.00	14.30	0.70	---	22.05	0.00	974.35
95-07R	994.91	7/14/06	18.13	18.11	0.02	---	26.05	0.00	976.80
95-07R	994.91	8/21/06	19.26	19.24	0.02	---	26.10	0.00	975.67
3-6C-EB-22	986.94	8/21/06	14.20	---	0.00	---	20.01	0.00	972.74
E2SC-03I	982.12	8/21/06	9.90	---	0.00	35.50	42.33	6.83	972.22
E2SC-17	985.38	8/21/06	11.50	---	0.00	---	45.75	0.00	973.88
E2SC-23	992.07	8/21/06	17.75	---	0.00	---	21.15	0.00	974.32
E2SC-24	987.90	8/21/06	15.51	---	0.00	---	21.61	0.00	972.39
ES2-06	986.00	8/21/06	13.30	---	0.00	---	34.55	0.00	972.70
GMA1-14	997.43	8/21/06	9.42	9.40	0.02	---	23.26	0.00	988.03
GMA1-15	988.59	8/21/06	15.98	15.61	0.37	---	17.84	0.00	972.95
GMA1-16	986.82	8/21/06	14.10	13.66	0.44	---	20.00	0.00	973.13
GMA1-17E	993.03	8/21/06	15.90	15.88	0.02	---	17.30	0.00	977.15
GMA1-17W	992.63	8/21/06	17.15	15.65	1.50	---	23.25	0.00	976.88
GMA1-19	984.28	8/2/06	12.10	11.35	0.75	---	17.13	0.00	972.88
GMA1-19	984.28	8/9/06	11.53	11.51	0.02	---	17.14	0.00	972.77
GMA1-19	984.28	8/16/06	11.90	11.65	0.25	---	17.13	0.00	972.61
GMA1-19	984.28	8/21/06	11.48	11.45	0.03	---	17.14	0.00	972.83
GMA1-19	984.28	8/29/06	11.72	11.51	0.21	---	17.14	0.00	972.76
GMA1-20	983.49	8/2/06	10.98	---	0.00	---	17.30	0.00	972.51
GMA1-20	983.49	8/9/06	11.02	---	0.00	---	17.28	0.00	972.47
GMA1-20	983.49	8/16/06	11.20	---	0.00	---	19.44	0.00	972.29
GMA1-20	983.49	8/21/06	10.84	---	0.00	---	17.30	0.00	972.65
GMA1-20	983.49	8/29/06	11.00	---	0.00	---	17.30	0.00	972.49
GMA1-21	985.68	8/2/06	13.05	---	0.00	---	19.48	0.00	972.63
GMA1-21	985.68	8/9/06	13.25	---	0.00	---	19.46	0.00	972.43
GMA1-21	985.68	8/16/06	13.30	---	0.00	---	19.44	0.00	972.38
GMA1-21	985.68	8/21/06	13.00	---	0.00	---	19.45	0.00	972.68
GMA1-21	985.68	8/29/06	13.10	---	0.00	---	19.45	0.00	972.58
GMA1-22	988.45	8/21/06	15.40	---	0.00	---	19.25	0.00	973.05
GMA1-23	986.16	8/21/06	13.23	---	0.00	---	17.30	0.00	972.93
GMA1-24	983.81	8/21/06	11.20	---	0.00	---	16.10	0.00	972.61
GMA1-24	983.81	8/29/06	11.35	---	0.00	---	16.10	0.00	972.46
HR-G2-MW-1	982.60	8/21/06	8.50	---	0.00	---	18.24	0.00	974.10
HR-G2-MW-2	981.39	8/21/06	8.74	---	0.00	---	17.76	0.00	972.65
HR-G2-MW-3	987.14	8/21/06	14.75	---	0.00	---	22.00	0.00	972.39
HR-G2-RW-1	976.88	8/21/06	6.20	---	0.00	---	18.70	0.00	972.25
RW-1(S)	987.23	8/2/06	19.25	19.10	0.15	---	28.60	0.00	968.12
RW-1(S)	987.23	8/9/06	19.20	18.90	0.30	---	28.60	0.00	968.31

**TABLE 21-9**  
**ROUTINE WELL MONITORING**  
**EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
RW-1(S)	987.23	8/16/06	19.20	19.18	0.02	P	28.60	< 0.01	968.05
RW-1(S)	987.23	8/21/06	18.96	18.94	0.02	---	28.60	0.00	968.29
RW-1(S)	987.23	8/30/06	19.25	19.00	0.25	---	28.60	0.00	968.21
RW-1(X)	982.68	8/2/06	14.00	---	0.00	---	20.80	0.00	968.68
RW-1(X)	982.68	8/9/06	14.25	---	0.00	---	20.80	0.00	968.43
RW-1(X)	982.68	8/16/06	14.29	---	0.00	---	20.80	0.00	968.39
RW-1(X)	982.68	8/21/06	14.20	---	0.00	---	20.80	0.00	968.48
RW-1(X)	982.68	8/30/06	13.95	---	0.00	---	20.80	0.00	968.73
RW-2(X)	985.96	8/2/06	14.30	---	0.00	---	15.30	0.00	971.66
RW-2(X)	985.96	8/9/06	14.35	---	0.00	---	15.30	0.00	971.61
RW-2(X)	985.96	8/16/06	14.78	---	0.00	---	15.30	0.00	971.18
RW-2(X)	985.96	8/21/06	13.75	---	0.00	---	15.30	0.00	972.21
RW-2(X)	985.96	8/30/06	14.15	---	0.00	---	15.30	0.00	971.81
RW-3(X)	980.28	8/2/06	9.20	---	0.00	43.00	44.40	1.40	971.08
RW-3(X)	980.28	8/9/06	9.30	---	0.00	42.90	44.40	1.50	970.98
RW-3(X)	980.28	8/16/06	9.70	---	0.00	42.80	44.40	1.60	970.58
RW-3(X)	980.28	8/21/06	10.80	---	0.00	42.90	44.40	1.50	969.48
RW-3(X)	980.28	8/30/06	9.10	---	0.00	42.60	44.40	1.80	971.18
<b>Housatonic River</b>									
SG-HR-1	990.73	8/2/06	19.89	See Note 7 regarding depth to water					970.84
SG-HR-1	990.73	8/9/06	19.70	See Note 7 regarding depth to water					971.03
SG-HR-1	990.73	8/16/06	16.73	See Note 7 regarding depth to water					974.00
SG-HR-1	990.73	8/23/06	19.55	See Note 7 regarding depth to water					971.18
SG-HR-1	990.73	8/30/06	19.50	See Note 7 regarding depth to water					971.23

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. NM indicates information not measured.
5. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.
6. Well HR-G2-RW-1 is constructed at an angle of 41.67 degrees from vertical. Depth to water data reflect measurements collected along the angled well casing. Groundwater elevations are corrected to account for the angle of the well casing.
7. A survey reference point (SG-HR-1) was established on the Newell Street Bridge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.
8. A weighted bailer has been installed at this location to remove accumulations of DNAPL. The DNAPL thickness reported is that measured within the bailer upon the initial retrieval.

**TABLE 21-10  
ACTIVE RECOVERY SYSTEMS MONTHLY SUMMARY  
LYMAN STREET AREA  
GROUNDWATER MANAGEMENT AREA 1  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

<b>Month / Year</b>	<b>Volume Water Pumped (gallon)</b>	<b>RW-1 DNAPL Recovered (gallon)</b>	<b>RW-1R LNAPL Recovered (gallon)</b>	<b>RW-3 LNAPL Recovered (gallon)</b>
August 2004	310,473	--	--	--
September 2004	499,209	--	1	20
October 2004	426,078	--	--	--
November 2004	421,409	--	--	12
December 2004	539,528	--	--	10
January 2005	443,634	--	--	10
February 2005	409,113	--	--	5
March 2005	455,192	--	--	5
April 2005	425,145	--	--	5
May 2005	357,497	--	--	--
June 2005	422,006	--	--	10
July 2005	310,647	--	5	10
August 2005	302,572	--	--	--
September 2005	198,753	--	--	--
October 2005	314,247	--	--	--
November 2005	412,936	--	--	--
December 2005	332,721	--	--	--
January 2006	342,548	--	--	--
February 2006	336,595	--	--	--
March 2006	322,169	--	--	--
April 2006	245,626	--	--	--
May 2006	253,821	--	--	--
June 2006	562,906	--	--	--
July 2006	206,016	--	--	--
August 2006	216,359	--	--	--

**Notes:**

1. Volume of water pumped is total from Wells RW-1R, RW-2, and RW-3.
2. -- indicates LNAPL or DNAPL was not recovered by the system.
3. There was 8 hours of downtime for RW-1/1R. There was no downtime for RW-2 or RW-3 during August 2006.



**TABLE 21-11  
 MEASUREMENT AND REMOVAL OF RECOVERABLE LNAPL  
 LYMAN STREET AREA  
 GROUNDWATER MANAGEMENT AREA 1  
 CONSENT DECREE MONTHLY STATUS REPORT  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
 August 2006**

<b>Well Name</b>	<b>Date</b>	<b>Depth to Water (ft BMP)</b>	<b>Depth to LNAPL (ft BMP)</b>	<b>LNAPL Thickness (feet)</b>	<b>LNAPL Removed (liters)</b>	<b>August 2006 Removal (liters)</b>
LS-31	8/30/06	14.50	14.10	0.40	0.247	0.247

**Total Manual LNAPL Removal for August 2006: 0.247 liters  
 0.065 gallons**

Note:

1. ft BMP - feet Below Measuring Point.

**TABLE 21-12  
 MEASUREMENT AND REMOVAL OF RECOVERABLE DNAPL  
 LYMAN STREET AREA  
 GROUNDWATER MANAGEMENT AREA 1  
 CONSENT DECREE MONTHLY STATUS REPORT  
 GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
 August 2006**

<b>Well Name</b>	<b>Date</b>	<b>Depth to Water (ft BMP)</b>	<b>Depth to DNAPL (ft BMP)</b>	<b>DNAPL Thickness (feet)</b>	<b>DNAPL Removed (liters)</b>	<b>August 2006 Removal (liters)</b>
LS-30	8/30/06	14.40	19.50	2.7	1.67	1.67
LSSC-07	8/2/06	11.35	24.70	0.38	0.234	1.111
	8/9/06	11.41	24.65	0.43	0.265	
	8/16/06	11.60	24.72	0.36	0.222	
	8/23/06	11.30	24.78	0.30	0.185	
	8/30/06	11.35	24.75	0.33	0.204	
LSSC-08I	8/16/06	13.10	23.37	0.01	0.006	0.012
	8/23/06	12.75	23.35	0.01	0.006	

**Total Manual DNAPL Removal for August 2006: 1.123 liters  
 0.296 gallons**

Note:

1. ft BMP - feet Below Measuring Point.

**TABLE 21-13  
ROUTINE WELL MONITORING  
LYMAN STREET AREA  
GROUNDWATER MANAGEMENT AREA 1  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
EPA-01	983.04	8/30/06	12.60	---	0.00	---	22.65	0.00	970.44
LS-24	986.58	8/30/06	14.28	---	0.00	---	15.06	0.00	972.30
LS-30	986.440	8/30/06	14.40	---	0.00	19.50	22.20	2.70	972.04
LS-31	987.090	8/30/06	14.50	14.10	0.40	23.10	23.32	0.22	972.96
LS-38	986.95	8/30/06	16.06	---	0.00	---	25.04	0.00	970.89
LS-44	980.78	8/30/06	10.20	---	0.00	---	24.78	0.00	970.58
LSSC-07	982.48	8/2/06	11.35	---	0.00	24.70	25.08	0.38	971.13
LSSC-07	982.48	8/9/06	11.41	---	0.00	24.65	25.08	0.43	971.07
LSSC-07	982.48	8/16/06	11.60	---	0.00	24.72	25.08	0.36	970.88
LSSC-07	982.48	8/23/06	11.30	---	0.00	24.78	25.08	0.30	971.18
LSSC-07	982.48	8/30/06	11.35	---	0.00	24.75	25.08	0.33	971.13
LSSC-08I	983.13	8/2/06	12.94	---	0.00	---	23.39	0.00	970.19
LSSC-08I	983.13	8/9/06	12.93	---	0.00	---	23.38	0.00	970.20
LSSC-08I	983.13	8/16/06	13.10	---	0.00	23.37	23.38	0.01	970.03
LSSC-08I	983.13	8/23/06	12.75	---	0.00	23.35	23.36	0.01	970.38
LSSC-08I	983.13	8/30/06	12.80	---	0.00	---	23.37	0.00	970.33
LSSC-08S	983.11	8/30/06	12.82	---	0.00	---	14.68	0.00	970.29
LSSC-16I	980.88	8/30/06	9.65	---	0.00	---	28.53	0.00	971.23
LSSC-18	987.32	8/30/06	14.97	---	0.00	---	18.58	0.00	972.35
LSSC-32	980.68	8/30/06	9.77	---	0.00	---	35.24	0.00	970.91
LSSC-33	980.49	8/30/06	9.60	---	0.00	---	29.24	0.00	970.89
RW-1	984.88	8/2/06	12.70	---	0.00	P	21.00	< 0.01	972.18
RW-1	984.88	8/9/06	12.81	---	0.00	P	21.00	< 0.01	972.07
RW-1	984.88	8/16/06	13.00	---	0.00	P	21.00	< 0.01	971.88
RW-1	984.88	8/21/06	12.80	---	0.00	P	21.00	< 0.01	972.08
RW-1	984.88	8/30/06	12.90	---	0.00	P	21.00	< 0.01	971.98
RW-1 (R)	985.07	8/2/06	14.80	---	0.00	P	20.42	< 0.01	970.27
RW-1 (R)	985.07	8/9/06	14.69	---	0.00	P	20.42	< 0.01	970.38
RW-1 (R)	985.07	8/16/06	14.80	---	0.00	P	20.42	< 0.01	970.27
RW-1 (R)	985.07	8/21/06	15.75	---	0.00	P	20.42	< 0.01	969.32
RW-1 (R)	985.07	8/30/06	15.60	---	0.00	P	20.42	< 0.01	969.47
RW-2	987.82	8/2/06	14.85	---	0.00	---	21.75	0.00	972.97
RW-2	987.82	8/9/06	14.75	---	0.00	---	21.75	0.00	973.07
RW-2	987.82	8/16/06	15.30	---	0.00	---	21.75	0.00	972.52
RW-2	987.82	8/21/06	14.55	---	0.00	---	21.75	0.00	973.27
RW-2	987.82	8/30/06	15.10	---	0.00	---	21.75	0.00	972.72
RW-3	984.08	8/2/06	16.64	16.61	0.03	---	21.57	0.00	967.47
RW-3	984.08	8/9/06	16.58	16.45	0.13	---	21.57	0.00	967.62
RW-3	984.08	8/16/06	16.30	16.28	0.02	---	21.57	0.00	967.80
RW-3	984.08	8/21/06	16.60	16.50	0.10	---	21.57	0.00	967.57
RW-3	984.08	8/30/06	16.85	16.70	0.15	---	21.57	0.00	967.37

**TABLE 21-13**  
**ROUTINE WELL MONITORING**  
**LYMAN STREET AREA**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
<b>Housatonic River (Lyman Street Bridge)</b>									
BM-2A	986.32	8/2/06	16.48			See Note 5 regarding depth to water			969.84
BM-2A	986.32	8/9/06	16.40			See Note 5 regarding depth to water			969.92
BM-2A	986.32	8/16/06	16.50			See Note 5 regarding depth to water			969.82
BM-2A	986.32	8/23/06	16.35			See Note 5 regarding depth to water			969.97
BM-2A	986.32	8/30/06	16.38			See Note 5 regarding depth to water			969.94

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.
5. A survey reference point (BM-2A) was established on the Lyman Street Bridge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.

**TABLE 21-14**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GROUNDWATER MANAGEMENT AREA 1 - NEWELL STREET AREA II**  
**MEASUREMENT AND REMOVAL OF RECOVERABLE DNAPL**  
**August 2006**

<b>Well Name</b>	<b>Date</b>	<b>Depth to Water (ft BMP)</b>	<b>Depth to DNAPL (ft BMP)</b>	<b>DNAPL Thickness (feet)</b>	<b>DNAPL Removed (liters)</b>	<b>August 2006 Removal (liters)</b>
N2SC-01I	8/30/06	12.35	36.30	4.10	2.530	2.530
N2SC-03I	8/30/06	10.90	35.40	2.35	1.450	1.450
N2SC-08	8/30/06	11.94	38.80	2.35	1.45	1.450
NS-30	8/30/06	10.60	34.40	0.70	0.432	0.432
NS-32	8/30/06	11.61	37.75	0.25	0.154	0.154

**Total DNAPL Removal for August 2006: 6.015 liters**  
**1.587 gallons**

Note:

1. ft BMP - feet Below Measuring Point.

**TABLE 21-15**  
**ROUTINE WELL MONITORING**  
**NEWELL STREET AREA II**  
**GROUNDWATER MANAGEMENT AREA 1**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
N2SC-01I	984.99	8/2/06	13.55	---	0.00	37.10	40.45	3.35	971.44
N2SC-01I	984.99	8/9/06	12.55	---	0.00	36.25	40.40	4.15	972.44
N2SC-01I	984.99	8/16/06	12.60	---	0.00	36.50	40.40	3.90	972.39
N2SC-01I	984.99	8/23/06	12.60	---	0.00	36.50	40.40	3.90	972.39
N2SC-01I	984.99	8/30/06	12.35	---	0.00	36.30	40.40	4.10	972.64
N2SC-01I(R)	986.01	8/2/06	13.91	---	0.00	39.20	40.60	1.40	972.10
N2SC-02	985.56	8/30/06	11.50	---	0.00	---	38.35	0.00	974.06
N2SC-03I	986.24	8/2/06	10.93	---	0.00	35.30	37.79	2.49	975.31
N2SC-03I	986.24	8/9/06	11.05	---	0.00	35.35	37.80	2.45	975.19
N2SC-03I	986.24	8/16/06	11.15	---	0.00	35.55	37.75	2.20	975.09
N2SC-03I	986.24	8/23/06	12.91	---	0.00	35.80	37.75	1.95	973.33
N2SC-03I	986.24	8/30/06	10.90	---	0.00	35.40	37.75	2.35	975.34
N2SC-03I(R)	985.86	8/2/06	13.60	---	0.00	37.90	40.60	2.70	972.26
N2SC-03I(R)	985.86	8/9/06	13.65	---	0.00	38.00	40.58	2.58	972.21
N2SC-03I(R)	985.86	8/16/06	12.85	---	0.00	36.80	39.55	2.75	973.01
N2SC-07	984.61	8/30/06	10.53	---	0.00	---	35.83	0.00	974.08
N2SC-08	986.07	8/30/06	11.94	---	0.00	38.80	41.15	2.35	974.13
N2SC-14	985.06	8/2/06	14.90	---	0.00	38.55	40.30	1.75	970.16
NS-15R	NA	8/2/06	11.18	---	0.00	---	19.04	0.00	NA
NS-15R	NA	8/9/06	11.20	---	0.00	---	19.00	0.00	NA
NS-15R	NA	8/16/06	11.40	---	0.00	---	19.00	0.00	NA
NS-15R	NA	8/23/06	11.04	---	0.00	---	14.00	0.00	NA
NS-15R	NA	8/30/06	11.02	---	0.00	---	19.03	0.00	NA
NS-30	985.99	8/2/06	10.70	---	0.00	34.45	35.15	0.70	975.29
NS-30	985.99	8/9/06	10.75	---	0.00	34.35	35.15	0.80	975.24
NS-30	985.99	8/16/06	10.90	---	0.00	34.30	35.10	0.80	975.09
NS-30	985.99	8/23/06	10.60	---	0.00	34.30	35.30	1.00	975.39
NS-30	985.99	8/30/06	10.60	---	0.00	34.40	35.10	0.70	975.39
NS-32	986.20	8/2/06	11.70	---	0.00	37.80	38.05	0.25	974.50
NS-32	986.20	8/9/06	11.70	---	0.00	37.85	38.04	0.19	974.50
NS-32	986.20	8/16/06	11.95	---	0.00	37.85	38.03	0.18	974.25
NS-32	986.20	8/23/06	11.62	---	0.00	37.70	38.00	0.30	974.58
NS-32	986.20	8/30/06	11.61	---	0.00	37.75	38.00	0.25	974.59

**Notes:**

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.

**TABLE 21-16  
ROUTINE WELL MONITORING  
SILVER LAKE AREA  
GROUNDWATER MANAGEMENT AREA 1  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
<b>Staff Gauge within Silver Lake</b>									
Silver Lake Gauge	980.30	8/2/06	4.53	See Note 4 regarding depth to water					984.83
Silver Lake Gauge	980.30	8/9/06	4.58	See Note 4 regarding depth to water					984.88
Silver Lake Gauge	980.30	8/16/06	4.56	See Note 4 regarding depth to water					984.86
Silver Lake Gauge	980.30	8/23/06	4.98	See Note 4 regarding depth to water					985.28
Silver Lake Gauge	980.30	8/30/06	4.48	See Note 4 regarding depth to water					984.78

**Notes:**

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. A survey reference point was established on the Silver Lake staff gauge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.
5. Additional groundwater elevation data were collected from wells near Silver Lake that are located in the 30s Complex and at the Lyman Street Area. Those results are presented in the monitoring tables for those Removal Action Areas.

**ITEM 22  
GROUNDWATER MANAGEMENT AREAS  
FORMER OXBOWS J & K (GMA 2)  
(GECD320)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

Continued routine river elevation monitoring.

**b. Sampling/Test Results Received**

See attached table.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

Continue routine river elevation monitoring.

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None



**TABLE 22-1**  
**ROUTINE WELL MONITORING**  
**GROUNDWATER MANAGEMENT AREA 2**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
<b>Housatonic River (Foot Bridge)</b>									
GMA2-SG-1	989.82	8/30/06	17.08	See Note 2 regarding depth to water					972.74

Notes:

1. ft BMP - feet Below Measuring Point.
2. A survey reference point was established on the Oxbow J & K foot bridge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.

**ITEM 23**  
**GROUNDWATER MANAGEMENT AREAS**  
**PLANT SITE 2 (GMA 3)**  
**(GECD330)**  
**AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- Conducted routine groundwater elevation and NAPL monitoring activities. Approximately 106.877 liters (28.20 gallons) of LNAPL were removed by the automatic skimmer located in well 51-21 and an additional 4.960 liters (1.31 gallons) of LNAPL were manually removed from the wells in this area (see Table 23-6).
- Conducted soil gas investigation near Building 51, including sampling of soil gas as well as sampling of groundwater and LNAPL near the soil gas sample locations, as identified in Table 23-1.
- Collected and tankered approximately 455 gallons of drummed water from GMA 3 to Building 64G for treatment.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

Submitted Groundwater Quality Monitoring Interim Report for Spring 2006 (August 30, 2006).

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue ongoing groundwater and NAPL monitoring and recovery activities.
- Submit report on soil gas investigation near Building 51 (due to EPA by September 11, 2006).

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

No issues

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 23-1**  
**DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**  
**GROUNDWATER MANAGEMENT AREA 3**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Received by GE or BBL</b>
Soil Gas Investigation	51-8	8/8/06	Water	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	51-8	8/8/06	NAPL	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	DUP-1 (51-8)	8/8/06	Water	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	DUP-1 (51-8)	8/8/06	NAPL	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	GMA3-10	8/8/06	Water	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	GMA3-10	8/8/06	NAPL	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	SG-51E	8/7/06	Air	Lancaster	VOC, SVOC	8/31/06
Soil Gas Investigation	SG-51S	8/7/06	Air	Lancaster	VOC, SVOC	8/31/06
Soil Gas Investigation	SG-51W	8/7/06	Air	Lancaster	VOC, SVOC	8/31/06
Soil Gas Investigation	SG-DUP-1 (SG-51S)	8/7/06	Air	Lancaster	VOC, SVOC	8/31/06
Soil Gas Investigation	UB-PZ-3	8/8/06	NAPL	SGS	VOC, SVOC	8/25/06
Soil Gas Investigation	UB-PZ-3	8/8/06	Water	SGS	VOC, SVOC	8/25/06

**Notes:**

1. Field duplicate sample locations are presented in parenthesis.
2. (f) - Indicates filtered analysis requested.

**TABLE 23-2  
DATA RECEIVED DURING AUGUST 2006**

**BASELINE SEMI-ANNUAL GROUNDWATER SAMPLING  
GROUNDWATER MANAGEMENT AREA 3  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	2A 04/19/06	16A 04/20/06	39B-R 04/20/06	114B-R 04/20/06
<b>Volatile Organics</b>					
Benzene		--	--	1.4 J	0.021 J
Chlorobenzene		--	--	--	--
Ethylbenzene		--	ND(5.0)	ND(5.0)	ND(0.050)
Methylene Chloride		ND(0.50)	ND(5.0)	ND(5.0)	ND(0.050)
Toluene		--	--	0.70 J	ND(0.050)
Trichloroethene		--	ND(5.0)	--	ND(0.050)
Vinyl Chloride		ND(0.20)	ND(2.0)	ND(2.0)	0.013 J
Xylenes (total)		ND(1.0)	ND(10)	ND(10)	ND(0.10)
Total VOCs		--	--	--	0.32 J

Notes:

1. These results have been revised by the laboratory and supersede those results reported in Table 23-2 and Table 24-2 of the May 2006 CD Monthly Report.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. -- Sample results not revised by laboratory.

Data Qualifiers:

Organics (volatiles)

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

**TABLE 23-3  
NAPL DATA RECEIVED DURING AUGUST 2006**

**SOIL GAS INVESTIGATION  
GROUNDWATER MANAGEMENT AREA 3  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	51-8 08/08/06	GMA3-10 08/08/06	UB-PZ-3 08/08/06
<b>Volatiles Organics</b>				
Methylene Chloride		0.90 J [0.67 J]	0.77 J	0.73 J
Tetrachloroethene		0.55 J [0.47 J]	ND(1.0)	ND(1.0)
Trichloroethene		0.65 J [0.34 J]	ND(1.0)	ND(1.0)
<b>Semivolatiles Organics</b>				
1,2,4-Trichlorobenzene		7.7 [8.1]	0.89 J	7.9
1,3-Dichlorobenzene		1.5 [1.5]	ND(1.0)	1.2
1,4-Dichlorobenzene		4.2 [4.0]	0.22 J	ND(1.0)
Naphthalene		ND(1.0) [0.29 J]	ND(1.0)	ND(1.0)

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of VOCs and selected SVOCs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. Only those constituents detected in one or more samples are summarized.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics (volatiles, semivolatiles)

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

**TABLE 23-4  
GROUNDWATER DATA RECEIVED DURING AUGUST 2006**

**SOIL GAS INVESTIGATION  
GROUNDWATER MANAGEMENT AREA 3  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	51-8 08/08/06	GMA3-10 08/08/06	UB-PZ-3 08/08/06
<b>Volatile Organics</b>				
2-Butanone		0.0056 [0.0058]	0.0042 J	0.0042 J
Acetone		0.017 [0.018]	0.011	0.014
Toluene		0.00021 J [ND(0.0010)]	ND(0.0010)	ND(0.0010)
Trichloroethene		0.00096 J [0.0010]	ND(0.0010)	0.00027 J
Vinyl Chloride		0.0013 [0.0015]	ND(0.0010)	ND(0.0010)
<b>Semivolatile Organics</b>				
1,2,4-Trichlorobenzene		0.0014 [0.0012]	ND(0.0010)	0.0015
1,3-Dichlorobenzene		0.00048 J [0.00052 J]	ND(0.0010)	0.00030 J
1,4-Dichlorobenzene		0.0024 [0.0025]	0.00026 J	ND(0.0010)

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. for analysis of VOCs and selected SVOCs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. Only those constituents detected in one or more samples are summarized.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics (volatiles, semivolatiles)

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

**TABLE 23-5  
SOIL GAS DATA RECEIVED DURING AUGUST 2006**

**SOIL GAS INVESTIGATION  
GROUNDWATER MANAGEMENT AREA 3  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in ug/m<sup>3</sup>)**

<b>Parameter</b>	<b>Sample ID: Date Collected:</b>	<b>SG-51E 08/07/06</b>	<b>SG-51S 08/07/06</b>	<b>SG-51W 08/07/06</b>
<b>Volatile Organics</b>				
1,1,1-Trichloroethane		25	ND(55) [ND(55)]	ND(5.5)
1,1,2-trichloro-1,2,2-trifluoroethane		33	ND(77) [45 J]	ND(7.7)
1,1-Dichloroethane		2.3 J	ND(40) [ND(40)]	ND(4.0)
1,2,4-Trimethylbenzene		24	24 J [25 J]	240
1,2-Dichloroethane		ND(4.0)	ND(40) [11 J]	ND(4.0)
1,3,5-Trimethylbenzene		6.9	9.8 J [12 J]	57
1,3-butadiene		2.5 J	ND(44) [ND(44)]	3.3 J
2-Butanone		130	870 [770]	380
2-Hexanone		ND(8.2)	35 J [ND(82)]	ND(8.2)
4-Ethyltoluene		19	29 J [26 J]	110
4-Methyl-2-pentanone		4.4 J	ND(82) [ND(82)]	21
Acetone		270	3300 [3900]	480
Acetonitrile		ND(3.4)	48 [68]	ND(3.4)
Acrolein		ND(4.6)	46 J [46 J]	ND(4.6)
Benzene		3.5	9.9 J [12 J]	4.2
Carbon Disulfide		3.0 J	130 [140]	ND(3.1)
Carbon Tetrachloride		8.0	ND(63) [ND(63)]	ND(6.3)
Chlorodifluoromethane		ND(3.5)	ND(35) [59]	ND(3.5)
Chloroform		62	31 J [32 J]	1.5 J
cis-1,2-Dichloroethene		14	ND(40) [ND(40)]	ND(4.0)
Cumene		1.6 J	ND(49) [ND(49)]	6.9
Dichlorodifluoromethane		1.9 J	ND(49) [ND(49)]	ND(4.9)
Ethyl Acetate		ND(3.6)	49 [54]	9.2
Ethylbenzene		13	380 [360]	67
Heptane		9.4	44 [39 J]	11
Hexane		10	40 [50]	15
Isooctane		ND(4.7)	28 J [47]	2.0 J
m&p-Xylene		29	710 [670]	110
Methyl Methacrylate		ND(4.1)	ND(41) [89]	ND(4.1)
Methyl tert-butyl ether		2.1 J	49 [45]	13
Methylene Chloride		ND(3.5)	73 [190]	ND(3.5)
Octane		3.7 J	1200 [1100]	5.6
o-Xylene		12	160 [160]	58
Pentane		28	220 [220]	71
Propene		180	170 [170]	380
Styrene		1.7 J	17 J [16 J]	7.4
tert-Butyl Alcohol		1.4 J	ND(30) [ND(30)]	ND(3.0)
Tetrachloroethene		61	ND(68) [ND(68)]	ND(6.8)
Toluene		8.4	5700 [6000]	40
Trichloroethene		910	82 [81]	ND(5.4)
Trichlorofluoromethane		12	ND(56) [19 J]	21
<b>Semivolatile Organics</b>				
1,3-Dichlorobenzene		5.1 J	ND(60) [ND(60)]	11
Naphthalene		9.6	17 [17]	21

**TABLE 23-5  
SOIL GAS DATA RECEIVED DURING AUGUST 2006**

**SOIL GAS INVESTIGATION  
GROUNDWATER MANAGEMENT AREA 3  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in ug/m<sup>3</sup>)**

Notes:

1. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to Lancaster Laboratories for analysis of VOCs and selected SVOCs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
3. Only those constituents detected in one or more samples are summarized.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics (volatiles, semivolatiles)

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



**TABLE 23-6**  
**MEASUREMENT AND REMOVAL OF RECOVERABLE LNAPL**  
**GROUNDWATER MANAGEMENT AREA 3**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	LNAPL Removed (liters)	August 2006 Removal (liters)
51-08	8/16/06	12.65	11.50	1.15	0.680	2.006
	8/23/06	12.60	11.45	1.15	0.709	
	8/29/06	12.50	11.50	1.00	0.617	
51-16R	8/29/06	11.25	10.84	0.41	0.25	0.253
51-17	8/29/06	11.60	10.65	0.95	0.59	0.586
51-21	8/2/06	15.79	15.77	0.02	12.51	106.877
	8/9/06	16.08	P	< 0.01	15.92	
	8/16/06	16.70	16.30	0.40	15.92	
	8/21/06	16.05	16.03	0.02	29.18	
	8/30/06	16.03	16.00	0.03	33.35	
59-03R	8/29/06	12.56	12.00	0.56	0.40	0.395
GMA3-10	8/8/06	12.30	11.64	0.66	0.408	0.618
	8/16/06	12.15	11.81	0.34	0.210	
GMA3-12	8/2/06	12.23	11.90	0.33	0.816	0.816
GMA3-13	8/2/06	11.75	11.73	0.02	0.019	0.061
	8/9/06	11.90	11.88	0.02	0.012	
	8/16/06	12.00	11.96	0.04	0.024	
	8/29/06	12.02	12.01	0.01	0.006	
UB-PZ-3	8/8/06	12.76	12.48	0.28	0.173	0.225
	8/29/06	12.80	12.65	0.15	0.05	

**Total Automated LNAPL Removal at well 51-21 for August 2006: 106.877 liters**  
**28.20 Gallons**

**Total Manual LNAPL Removal at all other wells for August 2006: 4.960 liters**  
**1.31 Gallons**

**Total LNAPL Removed for August 2006: 111.837 liters**  
**29.51 Gallons**

Notes:

1. ft BMP - feet Below Measuring Point.
2. P indicates that LNAPL or DNAPL is present at a thickness that is < 0.01 feet. The corresponding thickness is recorded as such.

**TABLE 23-7**  
**ROUTINE WELL MONITORING**  
**GROUNDWATER MANAGEMENT AREA 3**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
51-05	996.44	8/29/06	10.63	10.60	0.03	---	11.41	0.00	985.84
51-06	997.36	8/29/06	11.20	---	0.00	---	14.56	0.00	986.16
51-07	997.08	8/29/06	9.00	---	0.00	---	11.24	0.00	988.08
51-08	997.08	8/2/06	12.65	11.25	1.40	---	14.66	0.00	985.73
51-08	997.08	8/8/06	12.88	11.36	1.52	---	14.70	0.00	985.61
51-08	997.08	8/9/06	12.75	11.40	1.35	---	14.70	0.00	985.59
51-08	997.08	8/16/06	12.65	11.50	1.15	---	14.68	0.00	985.50
51-08	997.08	8/23/06	12.60	11.45	1.15	---	14.67	0.00	985.55
51-08	997.08	8/29/06	12.50	11.50	1.00	---	14.69	0.00	985.51
51-09	997.70	8/29/06	11.56	---	0.00	---	11.60	0.00	986.14
51-11	994.37	8/29/06	9.30	---	0.00	---	13.54	0.00	985.07
51-12	996.55	8/29/06	7.73	---	0.00	---	13.34	0.00	988.82
51-13	997.42	8/29/06	Dry at 9.90 Feet		0.00	---	9.73	0.00	NA
51-14	996.77	8/29/06	11.45	---	0.00	---	14.80	0.00	985.32
51-15	996.43	8/29/06	11.14	10.95	0.19	---	14.40	0.00	985.47
51-16R	996.39	8/29/06	11.25	10.84	0.41	---	14.55	0.00	985.52
51-17	996.43	8/29/06	11.60	10.65	0.95	---	14.50	0.00	985.71
51-18	997.12	8/29/06	8.23	---	0.00	---	12.60	0.00	988.89
51-19	996.43	8/29/06	Well is Submerged Under Water			---	14.06	0.00	NA
51-21	1001.49	8/2/06	15.79	15.77	0.02	---	NM	0.00	985.72
51-21	1001.49	8/9/06	16.08	P	< 0.01	---	NM	0.00	985.41
51-21	1001.49	8/16/06	16.70	16.30	0.40	---	NM	0.00	985.16
51-21	1001.49	8/21/06	16.05	16.03	0.02	---	NM	0.00	985.46
51-21	1001.49	8/30/06	16.03	16.00	0.03	---	NM	0.00	985.49
59-01	997.52	8/29/06	Dry at 11.40 Feet		--	---	11.43	0.00	NA
59-03R	997.64	8/29/06	12.56	12.00	0.56	---	17.05	0.00	985.60
59-07	997.96	8/29/06	12.04	12.02	0.02	---	23.54	0.00	985.94
GMA3-10	997.54	8/2/06	11.98	11.52	0.46	---	17.96	0.00	985.99
GMA3-10	997.54	8/8/06	12.30	11.64	0.66	---	17.96	0.00	985.85
GMA3-10	997.54	8/9/06	12.10	11.70	0.40	---	17.93	0.00	985.81
GMA3-10	997.54	8/16/06	12.15	11.81	0.34	---	17.95	0.00	985.71
GMA3-10	997.54	8/23/06	12.03	11.81	0.22	---	17.96	0.00	985.71
GMA3-10	997.54	8/29/06	12.02	11.81	0.21	---	17.93	0.00	985.72
GMA3-11	997.25	8/29/06	9.96	---	0.00	---	18.30	0.00	987.29
GMA3-12	997.84	8/2/06	12.23	11.90	0.33	---	21.24	0.00	985.92
GMA3-12	997.84	8/9/06	12.20	12.09	0.11	---	21.24	0.00	985.74
GMA3-12	997.84	8/16/06	12.31	12.15	0.16	---	21.22	0.00	985.68
GMA3-12	997.84	8/23/06	12.30	12.18	0.12	---	21.24	0.00	985.65
GMA3-12	997.84	8/29/06	12.30	12.12	0.18	---	21.20	0.00	985.71
GMA3-13	997.73	8/2/06	11.75	11.73	0.02	---	17.70	0.00	986.00
GMA3-13	997.73	8/9/06	11.90	11.88	0.02	---	17.68	0.00	985.85
GMA3-13	997.73	8/16/06	12.00	11.96	0.04	---	17.68	0.00	985.77
GMA3-13	997.73	8/23/06	11.96	---	0.00	---	17.62	0.00	985.77
GMA3-13	997.73	8/29/06	12.02	12.01	0.01	---	17.64	0.00	985.72
GMA3-14	997.42	8/29/06	10.97	---	0.00	---	16.83	0.00	986.45

**TABLE 23-7  
ROUTINE WELL MONITORING  
GROUNDWATER MANAGEMENT AREA 3  
CONSENT DECREE MONTHLY STATUS REPORT  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
August 2006**

<b>Well Name</b>	<b>Measuring Point Elev. (feet)</b>	<b>Date</b>	<b>Depth to Water (ft BMP)</b>	<b>Depth to LNAPL (ft BMP)</b>	<b>LNAPL Thickness (feet)</b>	<b>Depth to DNAPL (ft BMP)</b>	<b>Total Depth (ft BMP)</b>	<b>DNAPL Thickness (feet)</b>	<b>Corrected Water Elev. (feet)</b>
UB-MW-10	995.99	8/29/06	10.40	---	0.00	---	14.95	0.00	985.59
UB-PZ-3	998.15	8/8/06	12.76	12.48	0.28	---	13.40	0.00	985.65
UB-PZ-3	998.15	8/29/06	12.80	12.65	0.15	---	13.42	0.00	985.49

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. NM indicates information not measured.
5. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.
6. This table also includes groundwater data collected from certain wells during sampling activities conducted in April 2006 that was not compiled in time to include in the previous monthly report.

**ITEM 24  
GROUNDWATER MANAGEMENT AREAS  
PLANT SITE 3 (GMA 4)  
(GEC340)  
AUGUST 2006**

\* All activities described below for this item were conducted pursuant to the Consent Decree.

**a. Activities Undertaken/Completed**

- Conducted routine groundwater elevation monitoring at well GMA4-3.
- Conducted drum sampling at Building 78 of monitoring well purge water, as identified in Table 24-1.

**b. Sampling/Test Results Received**

See attached tables.

**c. Work Plans/Reports/Documents Submitted**

None

**d. Upcoming Scheduled and Anticipated Activities (next six weeks)**

- Continue routine monitoring at well GMA4-3.
- Submit Groundwater Quality Monitoring Interim Report for Spring 2006 (originally due to EPA by August 30, 2006) (see Item 24.e below).

**e. General Progress/Unresolved Issues/Potential Schedule Impacts**

EPA and GE agreed that GE would defer submittal of the Groundwater Quality Monitoring Interim Report for Spring 2006 (originally due by August 30, 2006) to a later date to be agreed upon by EPA and GE. Based on discussions with EPA, GE will submit that report in September 2006.

**f. Proposed/Approved Work Plan Modifications**

None

**TABLE 24-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**GROUNDWATER MANAGEMENT AREA 4  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
Building 78 Purge Water Drum Sampling	BLDG78-F2145	8/16/06	Water	SGS	PCB, VOC, SVOC, Total Metals	
Building 78 Purge Water Drum Sampling	BLDG78-GMA-4-COMP	8/16/06	Water	SGS	PCB, VOC, SVOC, Total Metals	

**TABLE 24-2**  
**ROUTINE WELL MONITORING**  
**GROUNDWATER MANAGEMENT AREA 4**  
**CONSENT DECREE MONTHLY STATUS REPORT**  
**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS**  
**August 2006**

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
GMA4-3	1,003.95	8/29/06	18.15	---	0.00	---	26.25	0.00	985.80

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.

***Attachment A***

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**NPDES Sampling Records and Results  
August 2006**

**TABLE A-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**NPDES PERMIT MONITORING  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
NPDES Sampling	001-A7473	8/1/06	Water	Columbia	Oil & Grease	8/8/06
NPDES Sampling	001-A7475	8/1/06	Water	Accutest	PCB	8/17/06
NPDES Sampling	001-A7488	8/7/06	Water	Columbia	TSS	8/15/06
NPDES Sampling	005-A7460/A7461	7/25/06	Water	Accutest	PCB	8/15/06
NPDES Sampling	005-A7477/A7478	8/1/06	Water	Accutest	PCB	8/17/06
NPDES Sampling	005-A7489/A7490	8/7/06	Water	Accutest	PCB	8/24/06
NPDES Sampling	005-A7501/A7502	8/7/06	Water	Columbia	TSS, BOD	8/16/06
NPDES Sampling	005-A7516/A7517	8/15/06	Water	Accutest	PCB	8/28/06
NPDES Sampling	005-A7528/A7529	8/21/06	Water	Accutest	PCB	
NPDES Sampling	005-A7539/A7540	8/28/06	Water	Accutest	PCB	
NPDES Sampling	05B-A7463	7/28/06	Water	Columbia	Oil & Grease	8/8/06
NPDES Sampling	05B-A7465	7/28/06	Water	Accutest	PCB	8/15/06
NPDES Sampling	06A-A7466	7/28/06	Water	Columbia	Oil & Grease	8/8/06
NPDES Sampling	06A-A7468	7/28/06	Water	Accutest	PCB	8/15/06
NPDES Sampling	09B-A7458	7/24/06	Water	Columbia	TSS, BOD	8/1/06
NPDES Sampling	09B-A7489	7/31/06	Water	Columbia	TSS, BOD	8/8/06
NPDES Sampling	09B-A7499	8/7/06	Water	Columbia	TSS, BOD	8/16/06
NPDES Sampling	09B-A7518	8/15/06	Water	Columbia	TSS, BOD	8/24/06
NPDES Sampling	09B-A7531	8/21/06	Water	Columbia	TSS, BOD	
NPDES Sampling	09B-A7541	8/29/06	Water	Columbia	TSS, BOD	
NPDES Sampling	09C-A7450	7/22/06	Water	Columbia	Oil & Grease	8/1/06
NPDES Sampling	09C-A7452	7/23/06	Water	Columbia	Oil & Grease	8/1/06
NPDES Sampling	09C-A7480	8/3/06	Water	Columbia	Oil & Grease	8/16/06
NPDES Sampling	09C-A7497	8/7/06	Water	Columbia	Oil & Grease	8/16/06
NPDES Sampling	09C-A7519	8/15/06	Water	Columbia	Oil & Grease	8/24/06
NPDES Sampling	09C-A7521	8/20/06	Water	Columbia	Oil & Grease	
NPDES Sampling	09C-A7532	8/27/06	Water	Columbia	Oil & Grease	
NPDES Sampling	64G-A7456	7/24/06	Water	Columbia	Oil & Grease	8/1/06
NPDES Sampling	64G-A7471	7/31/06	Water	Columbia	Oil & Grease	8/8/06
NPDES Sampling	64G-A7495	8/7/06	Water	Columbia	Oil & Grease	8/16/06
NPDES Sampling	64G-A7513	8/14/06	Water	Columbia	Oil & Grease	8/24/06
NPDES Sampling	64G-A7525	8/21/06	Water	Columbia	Oil & Grease	
NPDES Sampling	64G-A7536	8/28/06	Water	Columbia	Oil & Grease	



**TABLE A-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**NPDES PERMIT MONITORING  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
NPDES Sampling	64T-A7454	7/24/06	Water	Columbia	Oil & Grease	8/1/06
NPDES Sampling	64T-A7469	7/31/06	Water	Columbia	Oil & Grease	8/8/06
NPDES Sampling	64T-A7492	8/7/06	Water	Columbia	Oil & Grease	8/16/06
NPDES Sampling	64T-A7511	8/14/06	Water	Columbia	Oil & Grease	8/24/06
NPDES Sampling	64T-A7523	8/21/06	Water	Columbia	Oil & Grease	
NPDES Sampling	64T-A7534	8/28/06	Water	Columbia	Oil & Grease	
NPDES Sampling	A7406R	7/10/06	Water	Aquatec	Chronic Toxicity Test	8/1/06
NPDES Sampling	A7407C	7/10/06	Water	Aquatec	Chronic Toxicity Test	8/1/06
NPDES Sampling	A7408R	7/12/06	Water	Aquatec	Chronic Toxicity Test	8/1/06
NPDES Sampling	A7409C	7/12/06	Water	Aquatec	Chronic Toxicity Test	8/1/06
NPDES Sampling	A7410R	7/14/06	Water	Aquatec	Chronic Toxicity Test	8/1/06
NPDES Sampling	A7411C	7/14/06	Water	Aquatec	Chronic Toxicity Test	8/1/06
NPDES Sampling	A7482R	8/7/06	Water	Aquatec	Acute Toxicity Test	8/24/06
NPDES Sampling	A7482R	8/7/06	Water	Aquatec	Chronic Toxicity Test	8/24/06
NPDES Sampling	A7482RCN	8/7/06	Water	Columbia	CN	8/18/06
NPDES Sampling	A7482RTM	8/7/06	Water	Columbia	Metals (10)	8/18/06
NPDES Sampling	A7483C	8/7/06	Water	Aquatec	Acute Toxicity Test	8/24/06
NPDES Sampling	A7483C	8/7/06	Water	Aquatec	Chronic Toxicity Test	8/24/06
NPDES Sampling	A7483CCN	8/7/06	Water	Columbia	CN	8/18/06
NPDES Sampling	A7483CDM	8/7/06	Water	Columbia	Filtered Metals (8)	8/18/06
NPDES Sampling	A7483CTM	8/7/06	Water	Columbia	Metals (10)	8/18/06
NPDES Sampling	A7484R	8/9/06	Water	Aquatec	Chronic Toxicity Test	8/24/06
NPDES Sampling	A7484RCN	8/9/06	Water	Columbia	CN	8/17/06
NPDES Sampling	A7484RTM	8/9/06	Water	Columbia	Metals (10)	8/17/06
NPDES Sampling	A7485C	8/9/06	Water	Aquatec	Chronic Toxicity Test	8/24/06
NPDES Sampling	A7485CCN	8/9/06	Water	Columbia	CN	8/17/06
NPDES Sampling	A7485CDM	8/9/06	Water	Columbia	Filtered Metals (8)	8/17/06
NPDES Sampling	A7485CTM	8/9/06	Water	Columbia	Metals (10)	8/17/06
NPDES Sampling	A7486R	8/11/06	Water	Aquatec	Chronic Toxicity Test	8/24/06
NPDES Sampling	A7486RCN	8/11/06	Water	Columbia	CN	8/22/06
NPDES Sampling	A7486RTM	8/11/06	Water	Columbia	Metals (10)	8/22/06
NPDES Sampling	A7487C	8/11/06	Water	Aquatec	Chronic Toxicity Test	8/24/06
NPDES Sampling	A7487CCN	8/11/06	Water	Columbia	CN	8/22/06
NPDES Sampling	A7487CDM	8/11/06	Water	Columbia	Filtered Metals (8)	8/22/06

**TABLE A-1  
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2006**

**NPDES PERMIT MONITORING  
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS**

<b>Project Name</b>	<b>Field Sample ID</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>Laboratory</b>	<b>Analyses</b>	<b>Date Received by GE or BBL</b>
NPDES Sampling	A7487CTM	8/11/06	Water	Columbia	Metals (10)	8/22/06
NPDES Sampling	AUG06WK1	8/1/06	Water	Columbia	Cu, Pb, Zn	8/8/06
NPDES Sampling	AUG06WK3	8/15/06	Water	Columbia	Cu, Pb, Zn	8/24/06
NPDES Sampling	AUG06WK4	8/21/06	Water	Columbia	Cu, Pb, Zn	
NPDES Sampling	JUL06WK5	7/25/06	Water	Columbia	Cu, Pb, Zn	8/1/06
NPDES Sampling	SEP06WK1	8/29/06	Water	Columbia	Cu, Pb, Zn	

TABLE A-2  
DATA RECEIVED DURING AUGUST 2006

NPDES PERMIT MONITORING SAMPLING  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)

Parameter	Sample ID: Date Collected:	001-A7473 08/01/06	001-A7475 08/01/06	001-A7488 08/07/06	005-A7460/A7461 07/25/06	005-A7477/A7478 08/01/06	005-A7489/A7490 08/07/06	005-A7501/A7502 08/07/06
<b>PCBs-Unfiltered</b>								
Aroclor-1260		NA	ND(0.000050)	NA	ND(0.000050)	ND(0.000050)	ND(0.000050)	NA
Total PCBs		NA	ND(0.000050)	NA	ND(0.000050)	ND(0.000050)	ND(0.000050)	NA
<b>Inorganics-Unfiltered</b>								
Aluminum		NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA
Calcium		NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA
Cyanide		NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA
Magnesium		NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Filtered</b>								
Aluminum		NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA
<b>Conventionals</b>								
Biological Oxygen Demand (5-day)		NA	NA	NA	NA	NA	NA	ND(2.0)
Oil & Grease		ND(5.0)	NA	NA	NA	NA	NA	NA
Total Suspended Solids		NA	NA	6.10	NA	NA	NA	ND(1.01)

TABLE A-2  
DATA RECEIVED DURING AUGUST 2006

NPDES PERMIT MONITORING SAMPLING  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)

Parameter	Sample ID: Date Collected:	005-A7516/A7517 08/15/06	05B-A7463 07/28/06	05B-A7465 07/28/06	06A-A7466 07/28/06	06A-A7468 07/28/06	09B-A7458 07/24/06	09B-A7489 07/31/06	09B-A7499 08/07/06
<b>PCBs-Unfiltered</b>									
Aroclor-1260		ND(0.000050)	NA	0.0085	NA	0.0012	NA	NA	NA
Total PCBs		ND(0.000050)	NA	0.0085	NA	0.0012	NA	NA	NA
<b>Inorganics-Unfiltered</b>									
Aluminum		NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA	NA
Calcium		NA	NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA	NA
Cyanide		NA	NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA	NA
Magnesium		NA	NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Filtered</b>									
Aluminum		NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA	NA
<b>Conventionals</b>									
Biological Oxygen Demand (5-day)		NA	NA	NA	NA	NA	ND(2.0)	ND(2.0)	ND(2.0)
Oil & Grease		NA	ND(5.0)	NA	ND(5.0)	NA	NA	NA	NA
Total Suspended Solids		NA	NA	NA	NA	NA	12.4	5.60	4.30

TABLE A-2  
DATA RECEIVED DURING AUGUST 2006

NPDES PERMIT MONITORING SAMPLING  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)

Parameter	Sample ID: Date Collected:	09B-A7518 08/15/06	09C-A7450 07/22/06	09C-A7452 07/23/06	09C-A7480 08/03/06	09C-A7497 08/07/06	09C-A7519 08/15/06	64G-A7456 07/24/06	64G-A7471 07/31/06	64G-A7495 08/07/06
<b>PCBs-Unfiltered</b>										
Aroclor-1260		NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Unfiltered</b>										
Aluminum		NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium		NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide		NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium		NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Filtered</b>										
Aluminum		NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Conventionals</b>										
Biological Oxygen Demand (5-day)		ND(2.0)	NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease		NA	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.3)	ND(5.0)	ND(5.2)	ND(5.0)	ND(5.3)
Total Suspended Solids		5.00	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE A-2  
DATA RECEIVED DURING AUGUST 2006**

**NPDES PERMIT MONITORING SAMPLING  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	64G-A7513 08/14/06	64T-A7454 07/24/06	64T-A7469 07/31/06	64T-A7492 08/07/06	64T-A7511 08/14/06	A7482RCN 08/07/06	A7482RTM 08/07/06	A7483CCN 08/07/06
<b>PCBs-Unfiltered</b>									
Aroclor-1260		NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Unfiltered</b>									
Aluminum		NA	NA	NA	NA	NA	NA	ND(0.100)	NA
Cadmium		NA	NA	NA	NA	NA	NA	ND(0.00500)	NA
Calcium		NA	NA	NA	NA	NA	NA	27.4	NA
Chromium		NA	NA	NA	NA	NA	NA	ND(0.0100)	NA
Copper		NA	NA	NA	NA	NA	NA	ND(0.0200)	NA
Cyanide		NA	NA	NA	NA	NA	ND(0.0100)	NA	0.0279
Lead		NA	NA	NA	NA	NA	NA	ND(0.00500)	NA
Magnesium		NA	NA	NA	NA	NA	NA	9.59	NA
Nickel		NA	NA	NA	NA	NA	NA	ND(0.0400)	NA
Silver		NA	NA	NA	NA	NA	NA	ND(0.0100)	NA
Zinc		NA	NA	NA	NA	NA	NA	ND(0.0200)	NA
<b>Inorganics-Filtered</b>									
Aluminum		NA	NA	NA	NA	NA	NA	NA	NA
Cadmium		NA	NA	NA	NA	NA	NA	NA	NA
Chromium		NA	NA	NA	NA	NA	NA	NA	NA
Copper		NA	NA	NA	NA	NA	NA	NA	NA
Lead		NA	NA	NA	NA	NA	NA	NA	NA
Nickel		NA	NA	NA	NA	NA	NA	NA	NA
Silver		NA	NA	NA	NA	NA	NA	NA	NA
Zinc		NA	NA	NA	NA	NA	NA	NA	NA
<b>Conventionals</b>									
Biological Oxygen Demand (5-day)		NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease		ND(5.0)	ND(5.2)	ND(5.0)	ND(5.2)	ND(5.0)	NA	NA	NA
Total Suspended Solids		NA	NA	NA	NA	NA	NA	NA	NA

**TABLE A-2  
DATA RECEIVED DURING AUGUST 2006**

**NPDES PERMIT MONITORING SAMPLING  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	A7483CDM 08/07/06	A7483CTM 08/07/06	A7484RCN 08/09/06	A7484RTM 08/09/06	A7485CCN 08/09/06	A7485CDM 08/09/06	A7485CTM 08/09/06	A7486RCN 08/11/06
<b>PCBs-Unfiltered</b>									
Aroclor-1260		NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Unfiltered</b>									
Aluminum		NA	ND(0.100)	NA	ND(0.100)	NA	NA	ND(0.100)	NA
Cadmium		NA	ND(0.00500)	NA	ND(0.00500)	NA	NA	ND(0.00500)	NA
Calcium		NA	68.6	NA	20.7	NA	NA	86.8	NA
Chromium		NA	ND(0.0100)	NA	ND(0.0100)	NA	NA	ND(0.0100)	NA
Copper		NA	ND(0.0200)	NA	ND(0.0200)	NA	NA	ND(0.0200)	NA
Cyanide		NA	NA	ND(0.0100)	NA	0.0444	NA	NA	ND(0.0100)
Lead		NA	ND(0.00500)	NA	ND(0.00500)	NA	NA	ND(0.00500)	NA
Magnesium		NA	28.5	NA	7.31	NA	NA	37.8	NA
Nickel		NA	ND(0.0400)	NA	ND(0.0400)	NA	NA	ND(0.0400)	NA
Silver		NA	ND(0.0100)	NA	ND(0.0100)	NA	NA	ND(0.0100)	NA
Zinc		NA	ND(0.0200)	NA	ND(0.0200)	NA	NA	ND(0.0200)	NA
<b>Inorganics-Filtered</b>									
Aluminum		ND(0.100)	NA	NA	NA	NA	ND(0.100)	NA	NA
Cadmium		ND(0.00500)	NA	NA	NA	NA	ND(0.00500)	NA	NA
Chromium		ND(0.0100)	NA	NA	NA	NA	ND(0.0100)	NA	NA
Copper		ND(0.0200)	NA	NA	NA	NA	ND(0.0200)	NA	NA
Lead		ND(0.00500)	NA	NA	NA	NA	ND(0.00500)	NA	NA
Nickel		ND(0.0400)	NA	NA	NA	NA	ND(0.0400)	NA	NA
Silver		ND(0.0100)	NA	NA	NA	NA	ND(0.0100)	NA	NA
Zinc		0.0252	NA	NA	NA	NA	ND(0.0200)	NA	NA
<b>Conventionals</b>									
Biological Oxygen Demand (5-day)		NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease		NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids		NA	NA	NA	NA	NA	NA	NA	NA

**TABLE A-2  
DATA RECEIVED DURING AUGUST 2006**

**NPDES PERMIT MONITORING SAMPLING  
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS  
(Results are presented in parts per million, ppm)**

Parameter	Sample ID: Date Collected:	A7486RTM 08/11/06	A7487CCN 08/11/06	A7487CDM 08/11/06	A7487CTM 08/11/06	AUG06WK1 08/01/06	AUG06WK3 08/15/06	JUL06WK5 07/25/06
<b>PCBs-Unfiltered</b>								
Aroclor-1260		NA	NA	NA	NA	NA	NA	NA
Total PCBs		NA	NA	NA	NA	NA	NA	NA
<b>Inorganics-Unfiltered</b>								
Aluminum		ND(0.100)	NA	NA	ND(0.100)	NA	NA	NA
Cadmium		ND(0.00500)	NA	NA	ND(0.00500)	NA	NA	NA
Calcium		27.8	NA	NA	87.2	NA	NA	NA
Chromium		ND(0.0100)	NA	NA	ND(0.0100)	NA	NA	NA
Copper		ND(0.0200)	NA	NA	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)
Cyanide		NA	0.0197	NA	NA	NA	NA	NA
Lead		ND(0.00500)	NA	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)
Magnesium		10.2	NA	NA	37.4	NA	NA	NA
Nickel		ND(0.0400)	NA	NA	ND(0.0400)	NA	NA	NA
Silver		ND(0.0100)	NA	NA	ND(0.0100)	NA	NA	NA
Zinc		ND(0.0200)	NA	NA	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)
<b>Inorganics-Filtered</b>								
Aluminum		NA	NA	ND(0.100)	NA	NA	NA	NA
Cadmium		NA	NA	ND(0.00500)	NA	NA	NA	NA
Chromium		NA	NA	ND(0.0100)	NA	NA	NA	NA
Copper		NA	NA	ND(0.0200)	NA	NA	NA	NA
Lead		NA	NA	ND(0.00500)	NA	NA	NA	NA
Nickel		NA	NA	ND(0.0400)	NA	NA	NA	NA
Silver		NA	NA	ND(0.0100)	NA	NA	NA	NA
Zinc		NA	NA	ND(0.0200)	NA	NA	NA	NA
<b>Conventionals</b>								
Biological Oxygen Demand (5-day)		NA	NA	NA	NA	NA	NA	NA
Oil & Grease		NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids		NA	NA	NA	NA	NA	NA	NA

**Notes:**

1. Samples were collected by General Electric Company and submitted to Accutest Laboratories and Columbia Analytical Services, Inc. for analysis of PCBs, cyanide, TSS, BOD, oil & grease, and metals (filtered and unfiltered).
2. NA - Not Analyzed.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. With the exception of inorganics and conventional parameters, only those constituents detected in one or more samples are summarized.



***Attachment B***

---

**NPDES Discharge Monitoring Reports  
July 2006**

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION  
 ADDRESS ATTN: JEFFREY G. RUEBESAM  
 100 WOODLAWN AVENUE  
 PITTSFIELD MA 01201  
 FACILITY GENERAL ELECTRIC COMPANY  
 LOCATION PITTSFIELD MA 01201  
 ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

Form Approved.  
 OMB No. 2040-0004

MA0003891 005 1  
 PERMIT NUMBER DISCHARGE NUMBER

MAJOR (SUBR W )  
 F - FINAL  
 WATERS TO HOUSATONIC RIVER

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
06	07	01	06	07	31

\*\*\* NO DISCHARGE 1 1 \*\*\*  
 NOTE: Read instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD, 5-DAY (20 DEG. C) 00310 T 0 0 SEE COMMENTS BELOW	0	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	01/30	CP	
	PERMIT REQUIREMENT	90 MD AVG	135 DAILY MX	LBS/DY	*****	*****	*****	****	ONCE/ MONTH	COMPOS	
SOLIDS, TOTAL SUSPENDED 00530 T 0 0 SEE COMMENTS BELOW	0	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	01/30	CP	
	PERMIT REQUIREMENT	188 MD AVG	270 DAILY MX	LBS/DY	*****	*****	*****	****	ONCE/ MONTH	COMPOS	
OIL & GREASE 00556 T 0 0 SEE COMMENTS BELOW	*****	24.6	( 26 ) LBS/DY	*****	*****	5.2	( 19 ) MG/L	0	01/07	GR	
	PERMIT REQUIREMENT	*****	135 DAILY MX	LBS/DY	*****	*****	15 DAILY MX MG/L	*****	WEEKLY	GRAB	
POLYCHLORINATED BIPHENYLS (PCBS) 39516 T 0 0 SEE COMMENTS BELOW	0	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	01/07	CP	
	PERMIT REQUIREMENT	0.01 MD AVG	0.03 DAILY MX	LBS/DY	*****	*****	*****	****	WEEKLY	COMPOS	
FLOW, IN CONDUIT OR THRU TREATMENT PLAN 50050 T 0 0 SEE COMMENTS BELOW	0.178	0.300	( 03 ) MGD	*****	*****	*****	*****	0	99/99	RC	
	PERMIT REQUIREMENT	2.09 MD AVG	2.09 DAILY MX	MGD	*****	*****	*****	****	CONTIN	RECORD	
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Michael T. Carroll  
 Mgr. Pittsfield Remediation Prog.  
 TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Michael T. Carroll*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
413	448-5902	2006	8	23
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 SEE PAGE 8 + 9 OF PERMIT FOR SAMPLING REQUIREMENTS. SEE DMR(S) 064G + 064T FOR FURTHER PARAMETERS.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION  
 ADDRESS ATTN JEFFREY G. RUEBESAM  
 100 WOODLAWN AVENUE  
 PITTSFIELD MA 01201  
 FACILITY GENERAL ELECTRIC COMPANY  
 LOCATION PITTSFIELD MA 01201  
 ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

MA0003891 PERMIT NUMBER  
 064 T DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
06	07	01		06	07	31

MAJOR (SUBR W )  
 F - FINAL  
 WASTEWATER TREATMENT (005)

Form Approved.  
 OMB No. 2040-0004

\*\*\* NO DISCHARGE 1 1 \*\*\*  
 NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH	SAMPLE MEASUREMENT	*****	*****		7.0	*****	7.6	( 12	0	99/99	RCDR
00400 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	6.0 MINIMUM	*****	9.0 MAXIMUM	SU		WEEKLY	RANG--C
DIBENZOFURAN	SAMPLE MEASUREMENT	*****	*****		*****	NODI [6]	NODI [6]	( 22			
81302 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MA	PPT		ONCE/ MONTH	COMPOS
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
 Michael T. Carroll  
 Mgr. Pittsfield Remediation Prog.  
 TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Michael T. Carroll*  
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE 413 448-5902  
 DATE 2006 8 23  
 AREA CODE NUMBER YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 SEE COMMENTS FOR 0051. SEE PAGE 8 + 9 OF PERMIT.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION  
 ADDRESS ATTN: JEFFREY G. RUEBESAM  
 100 WOODLAWN AVENUE  
 PITTSFIELD MA 01201  
 FACILITY GENERAL ELECTRIC COMPANY  
 LOCATION PITTSFIELD MA 01201  
 ATTN: MICHAEL T. CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

Form Approved.  
 OMB No. 2040-0004

MA0003891 PERMIT NUMBER  
 0646 DISCHARGE NUMBER

MAJOR (SUBRW)  
 F - FINAL  
 GROUNDWATER TREATMENT (005)

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
06	07	01		06	07	31

\*\*\* NO DISCHARGE [ ] \*\*\*  
 NOTE: Read Instructions before completing this form.

PARAMETER	SAMPLE MEASUREMENT / PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH 00400 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		7.5	*****	7.6	( 12 ) SU	0	99/99	RCDR
	PERMIT REQUIREMENT	*****	*****	*****	5.0 MINIMUM	*****	9.0 MAXIMUM	SU		WEEKLY	GRAB
BASE NEUTRALS & ACID (METHOD 625), TOTAL 76030 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		*****	NODI [9]	NODI [9]	( 19 )			
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MAX	MG/L		QTRLY	GRAB
VOLATILE COMPOUNDS, (GC/MS) 78732 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		*****	NODI [9]	NODI [9]	( 19 )			
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT MO AVG	REPORT DAILY MAX	MG/L		QTRLY	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Michael T. Carroll  
 Mgr. Pittsfield Remediation Prog.

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

413 448-5902

AREA CODE

NUMBER

DATE

2006 8 23

YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SEE COMMENTS FOR 0051. SEE PAGE 8 + 9 OF PERMIT.



PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION

ADDRESS ATTN: JEFFREY G. RUEBESAM

100 WOODLAWN AVENUE

PITTSFIELD MA 01201

FACILITY GENERAL ELECTRIC COMPANY

LOCATION PITTSFIELD MA 01201

ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

MA0003871

PERMIT NUMBER

007 1

DISCHARGE NUMBER

MAJOR

(SUBR W )

F - FINAL

DISCHARGE TO HOUSATONIC RIVER


Form Approved.  
OMB No. 2040-0004

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
08	07	01		08	07	31

\*\*\* NO DISCHARGE ~~1~~ \*\*\*

NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 0001: W O O SEE COMMENTS BELOW PH	SAMPLE MEASUREMENT	*****	*****		*****			( 15 )			
	PERMIT REQUIREMENT	*****	*****	****	*****	70 MD AVG	75 DAILY MX	DEG. F		ONCE/ MONTH	GRAB
00400 W O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****					( 12 )			
	PERMIT REQUIREMENT	*****	*****	****	6.0 MINIMUM	*****	9.0 MAXIMUM	SU		WEEKLY	RANG-
POLYCHLORINATED BIPHENYLS (PCBS) 09516 W O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		*****			( 21 )			
	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MD AVG	REPORT DAILY MX	PPB		QTRLY	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50030 W O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT			( 03 )	*****	*****	*****				
	PERMIT REQUIREMENT	REPORT MD AVG	REPORT DAILY MX	MGD	*****	*****	*****	****		ONCE/ MONTH	CALCT
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Michael T. Carroll Mgr. Pittsfield Remediation Prog.  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE			
			413 448-5902	2006	8	23	
			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SAMPLE AT MANHOLE PRIOR TO CITY STORM DRAIN.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION

ADDRESS ATTN: JEFFREY G. RUEBESAM

100 WOODLAWN AVENUE

PITTSFIELD MA 01201

FACILITY GENERAL ELECTRIC COMPANY

LOCATION PITTSFIELD MA 01201

ATTN: MICHAEL T. CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

MA0003891

PERMIT NUMBER

009 A

DISCHARGE NUMBER

MAJOR

(SUBR W)

F - FINAL

09A SAMPLE POINT BEFORE 009

Form Approved.  
OMB No. 2040-0004

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
06	07	01		08	07	31

\*\*\* NO DISCHARGE \*\*\*

NOTE: Read Instructions before completing this form.

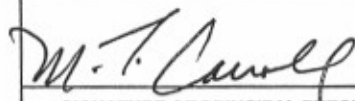
PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD, 5-DAY (20 DEG. C) 00310 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT			( 26 )	*****	*****	*****				
	PERMIT REQUIREMENT	106 MO AVG	438 DAILY MX	LBS/DY	*****	*****	*****	*****		WEEKLY	COMPOS
SOLIDS, TOTAL SUSPENDED 00530 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT			( 26 )	*****	*****	*****				
	PERMIT REQUIREMENT	213 MO AVG	876 DAILY MX	LBS/DY	*****	*****	*****	*****		WEEKLY	COMPOS
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT			( 03 )	*****	*****	*****				
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	*****	*****	*****	*****		CONTINUOUS	RECORDING
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Michael T. Carroll  
Mgr. Pittsfield Remediation Prog.

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

413 448-5902

AREA CODE NUMBER

DATE

2006 8 23

YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SEE PAGE 11 OF PERMIT. SEE DMR 0091. SAMPLE AT 09A.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION  
 ADDRESS ATTN: JEFFREY G. RUEBESAM  
 100 WOODLAWN AVENUE  
 PITTSFIELD MA 01201  
 FACILITY GENERAL ELECTRIC COMPANY  
 LOCATION PITTSFIELD MA 01201  
 ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

MA0003871 009 B  
 PERMIT NUMBER DISCHARGE NUMBER

MAJOR (SUBR W)  
 F - FINAL  
 09B SAMPLE POINT PRIOR TO 009

Form Approved.  
 OMB No. 2040-0004

MONITORING PERIOD						
YEAR	MO	DAY	YEAR	MO	DAY	
06	07	01	06	07	31	

\*\*\* NO DISCHARGE [ ] \*\*\*  
 NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD <sub>5</sub> 5-DAY (20 DEG. C) 00310 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.02	0.1	( 26 )	*****	*****	*****		0	01/DW	CP
	PERMIT REQUIREMENT	106 MO AVG	438 DAILY MX	LBS/DY	*****	*****	*****	****		WEEKLY	COMPO
SOLIDS, TOTAL SUSPENDED 00530 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	1.5	5.7	( 26 )	*****	*****	*****		0	01/DW	GR
	PERMIT REQUIREMENT	213 MO AVG	876 DAILY MX	LBS/DY	*****	*****	*****	****		WEEKLY	COMPO
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.027 1.5 MTC	0.340 5.4 MTC	( 03 ) MGD LBS/DY	*****	*****	*****		0	01/DW	CP
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	*****	*****	*****	****		CONTINUOUS	RECORD
	SAMPLE MEASUREMENT		2.8 MTC	LBS/DY			5.2 MTC		0	01/DW	GR
	PERMIT REQUIREMENT		MTC	MTC			MTC				
	SAMPLE MEASUREMENT					NODH [0] MTC	NODH [0] MTC				
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT	0.027 MTC	0.340 MTC	MGD MTC					0	09/00	RC
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Michael T. Carroll Mgr. Pittsfield Remediation Prog.  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M.T. Carroll  SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		DATE		
			413 448-5902	2006	8	25	
			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)  
 SEE PAGE 11 OF PERMIT. SEE DMR 0091; SAMPLE AT 09B.



PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved.  
OMB No. 2040-0004

NAME GENERAL ELECTRIC CORPORATION  
ADDRESS ATTN: JEFFREY G. RUEBESAM  
100 WOODLAWN AVENUE  
PITTSFIELD MA 01201  
FACILITY GENERAL ELECTRIC COMPANY  
LOCATION PITTSFIELD MA 01201  
ATTN: MICHAEL T CARROLL, EHS&F

MA0003871 PERMIT NUMBER  
009 1 DISCHARGE NUMBER

MAJOR (SUBR W )  
F - FINAL  
PROCESSES TO UNKAMET BROOK

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
06	07	01		06	07	31

\*\*\* NO DISCHARGE [ ] \*\*\*  
NOTE: Read instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD, 5-DAY (20 DEG. C) 00310 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.02	0.1	( 26 ) LBS/DY	*****	*****	*****		0	01/DW	CP
	PERMIT REQUIREMENT	106 MO AVG	438 DAILY MX	LBS/DY	*****	*****	*****	****		WEEKLY	COMPO
PH	SAMPLE MEASUREMENT	*****	*****		6.7	*****	7.6	( 12 ) SU	0	01/DW	GR
00400 V O O SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	*****	****	6.0 MINIMUM	*****	9.0 MAXIMUM	SU		WEEKLY	RANG-
SOLIDS, TOTAL SUSPENDED 00530 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	1.5	5.7	( 26 ) LBS/DY	*****	*****	*****		0	01/DW	CP
	PERMIT REQUIREMENT	213 MO AVG	874 DAILY MX	LBS/DY	*****	*****	*****	****		WEEKLY	COMPO
OIL & GREASE	SAMPLE MEASUREMENT	*****	2.9	( 26 ) LBS/DY	*****	*****	5.2	( 19 ) MG/L	0	01/DW	GR
00556 V O O SEE COMMENTS BELOW	PERMIT REQUIREMENT	*****	438 DAILY MX	LBS/DY	*****	*****	15 DAILY MX	MG/L		WEEKLY	GRAB
POLYCHLORINATED BIPHENYLS (PCBS) 39516 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*****	*****		*****	NODI [9]	NODI [9]	( 19 )			
	PERMIT REQUIREMENT	*****	*****	****	*****	REPORT MO AVG	REPORT DAILY MX	MG/L		QTRLY	GRAB
FLOW, IN CONDUIT GR THRU TREATMENT PLAN 50050 V O O SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.027	0.340	( 03 ) MGD	*****	*****	*****		0	99/99	RC
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	*****	*****	*****	****		CONTIN	CORD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
Michael T. Carroll  
Mgr. Pittsfield Remediation Prog.  
TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE 413 448-5902  
DATE 2006 8 23  
AREA CODE NUMBER YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

SEE PAGE 11 OF PERMIT. SEE DMRS 009A + 009B. REPORT SUM OF LOAD 09A + 09B, FOR BOD, TSS, FLOW. SAMPLE AT DISCHARGE POINT TO BROOK FOR PH, OIL & GREASE, AND PCB.



PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION  
 ADDRESS ATTN: JEFFREY G. RUEBESAM  
 100 WOODLAWN AVENUE  
 PITTSFIELD MA 01201  
 FACILITY GENERAL ELECTRIC COMPANY  
 LOCATION PITTSFIELD MA 01201  
 ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 DISCHARGE MONITORING REPORT (DMR)

MA0003891  
 PERMIT NUMBER

SUM A  
 DISCHARGE NUMBER

MAJOR (SUBR W)  
 F - FINAL  
 METALS: 001, 004, 005, 007, 009, 011

Form Approved.  
 OMB No. 2040-0004

MONITORING PERIOD							
YEAR	MO	DAY	FROM	TO	YEAR	MO	DAY
06	07	01			06	07	31

\*\*\* NO DISCHARGE [ ] \*\*\*  
 NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PHOSPHORUS, TOTAL (AS P) 00665 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0.3	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/MONTH	COMPOS
NICKEL TOTAL RECOVERABLE 01074 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/MONTH	COMPOS
SILVER TOTAL RECOVERABLE 01079 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/MONTH	COMPOS
ZINC TOTAL RECOVERABLE 01074 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0.2	( 26 ) LBS/DY	*****	*****	*****	*****	0	01/07	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		WEEKLY	COMPOS
ALUMINUM, TOTAL (AS AL) 01105 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0.6	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/MONTH	COMPOS
CADMIUM TOTAL RECOVERABLE 01113 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE/MONTH	COMPOS
LEAD TOTAL RECOVERABLE 01114 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0.02	( 26 ) LBS/DY	*****	*****	*****	*****	0	01/07	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		WEEKLY	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  Michael T. Carroll Mgr. Pittsfield Remediation Prog.  TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  <i>M. T. Carroll</i>	TELEPHONE		DATE		
			AREA CODE	NUMBER	YEAR	MO	DAY
			413	448-5902	2006	8	23

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

COMPOSITE PROPORTIONATE TO FLOW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION

ADDRESS ATTN: JEFFREY G. RUEBESAM  
100 WOODLAWN AVENUE

PITTSFIELD MA 01201

FACILITY GENERAL ELECTRIC COMPANY

LOCATION PITTSFIELD MA 01201

ATTN: MICHAEL T. CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

MA0003891

PERMIT NUMBER

SUM A

DISCHARGE NUMBER

MAJOR

(SUBR W)

F - FINAL

METALS: 001, 004, 005, 007, 009, 011

Form Approved.  
OMB No. 2040-0004

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
06	07	01		06	07	31

\*\*\* NO DISCHARGE 1 1 \*\*\*

NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
CHROMIUM TOTAL RECOVERABLE 01118 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE / MONTH	COMPOSE
COPPER TOTAL RECOVERABLE 01119 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0	( 26 ) LBS/DY	*****	*****	*****	*****	0	01/07	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		WEEKLY	COMPOSE
CYANIDE, TOTAL RECOVERABLE 78248 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	0.09	( 26 ) LBS/DY	*****	*****	*****	*****	0	03/30	CP
	PERMIT REQUIREMENT	*****	REPORT DAILY MX	LBS/DY	*****	*****	*****	*****		ONCE / MONTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Michael T. Carroll  
Mgr. Pittsfield Remediation Prog.

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*M. T. Carroll*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

413 448-5902

AREA CODE

NUMBER

DATE

2006 8 23

YEAR MO DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

COMPOSITE PROPORTIONATE TO FLOW.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GENERAL ELECTRIC CORPORATION

ADDRESS ATTN: JEFFREY G. RUEBESAM

100 WOODLAWN AVENUE

PITTSFIELD

MA 01201

FACILITY GENERAL ELECTRIC COMPANY

LOCATION PITTSFIELD

MA 01201

ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

MA0003891

PERMIT NUMBER

SUM B

DISCHARGE NUMBER

MAJOR

(SUBR W)

F - FINAL

TOXICS: 001, 004, 005, 007, 009, 011


Form Approved.  
OMB No. 2040-0004

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
06	07	01		06	07	31

\*\*\* NO DISCHARGE 1 1 \*\*\*

NOTE: Read Instructions before completing this form.

PARAMETER	X	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
NOEL STAT 7DAY CHR C ERIODAPHNIA TBD3B 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		100	*****	*****	% 23	0	01/30	CP
	PERMIT REQUIREMENT	*****	*****	****	REPORT DAILY MN	*****	*****	PER-CENT		ONCE/MONTH	COMPOS
NOAEL STAT 48HR ACU GERIODAPHNIA TDA3B 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		NODI [8]	*****	*****	( 23)			
	PERMIT REQUIREMENT	*****	*****	****	REPORT DAILY MN	*****	*****	PER-CENT		ONCE/MONTH	COMPOS
NOAEL STATRE 48HR AC U D. PULEX TDM3D 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****		100	*****	*****	% 23	0	01/30	CP
	PERMIT REQUIREMENT	*****	*****	****	35 DAILY MN	*****	*****	PER-CENT		ONCE/MONTH	COMPOS
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE			
Michael T. Carroll Mgr. Pittsfield Remediation Prog.			413 448-5902	2006	8	23	
TYPED OR PRINTED			AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

MONTHLY DRY WEATHER TESTING. COMPOSITE PROPORTIONATE TO FLOW. FOR JULY, AUG., SEPT. REPORT ACUTE AND CHRONIC. SEE DMR SUMC FOR QUARTERLY WET WEATHER ACUTE. SUBMIT THIS DMR WITH A NODI '9' WHEN SUBMITTING WET WEATHER RESULTS ON DMR SUMC

# *Attachment C*

---

## **NPDES Biomonitoring Report August 2006**

August 23, 2006

Mr. Jeffrey Nicholson  
GE Corporate Environmental Programs  
159 Plastics Avenue  
Pittsfield, MA 01201

Re: NPDES Biomonitoring Report for August 2006  
Submission #: R2632759

Dear Mr. Nicholson:

Enclosed is our report on the Whole Effluent Toxicity testing conducted in August 2006. The Outfall Composite samples were collected on 8/7/06 at 11:00 am. The Housatonic River samples were collected on 8/7/06 at 8:15 am. The Outfall Composite and Housatonic River samples were analyzed at Columbia Analytical Services for total cyanide, ammonia, total organic carbon, total phosphorus, chloride, total solids, total suspended solids, total residual chlorine, and total metals. Dissolved metals were analyzed for only on the Outfall Composite samples. Results are presented in Appendix 2. The Outfall Composite and Housatonic River samples were sent directly by General Electric to Aquatec Biological Services for the acute aquatic toxicity testing including the analysis of alkalinity, hardness, specific conductance, and pH. Results are presented in Appendix 1.

Should you have any questions please contact me at (585)288-5380 x130.

Thank you for allowing us to provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES



Carlton Beechler  
Project Manager

enc.

CC: Jill Piskorz, Pat Fuse and Nicole Evans vial email.

# **NPDES BIOMONITORING REPORT**

**GENERAL ELECTRIC COMPANY**

**Pittsfield, MA**

**NPDES PERMIT MA 0003891**

**Monthly Acute Toxicity Monitoring**

**Wet Weather Conditions**

**August 2006**

## **WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION**

I certify under penalty of law that this document and all ATTACHMENTS were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on \_\_\_\_\_

(Date)

\_\_\_\_\_  
(Authorized Signature)

Michael T. Carroll

General Electric Co. – Pittsfield, MA  
Permit MA0003891

**Prepared by: Carlton R. Beechler**  
**August 23, 2006**



## TABLE OF CONTENTS

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I. Summary	1
II. Review of Toxicity Analytical Results	2
III. Review of Wastewater Sampling Procedures	3
IV. Review of Individual Discharges	5

### Table I – Summary of Analytical Test Results

#### Appendices:

1. Chemical and Acute Toxicity Data from Aquatec Biological Sciences
2. Laboratory Reports from Columbia Analytical Services, Inc. and O'Brien & Gere, Inc.
3. Chain of Custody Forms

## I. Summary

On August 6-7, 2006 sampling of wastewater discharges from the General Electric Company facility in Pittsfield MA was conducted in accordance with the wet weather toxicity testing requirement of the GE NPDES Permit MA0003891. Composite samples were collected from GE outfalls 001, 005-64T, 005-64G and 09B over a 24-hour period. These composite samples were combined in a flow-proportioned manner to generate a single wastewater sample that was shipped to Aquatec Biological Sciences in Williston, Vermont. A grab sample of Housatonic River water, to be used as dilution water in the toxicity test, was collected upstream of the GE discharges on August 7, 2006 and shipped to AquaTec along with the wastewater composite. AquaTec dechlorinated the composite sample prior to the acute toxicity test following the toxicity reduction procedures summarized in a letter dated November 11, 1993 to EPA Region I from JG Ruebesam of General Electric Company. The composite wastewater sample and the dilution water sample were tested for chemical constituents by O'Brien & Gere, Inc. and Columbia Analytical Services. The analytical results are summarized in Table I and the detailed laboratory test data are include as Appendices to this report. As a result of land transfer documents executed on April 27, 2005 and recorded in the Berkshire County Registry of Deeds on May 2, 2005, Outfalls 001 and 004 were transferred to the Pittsfield Economic Development Authority (PEDA). Outfalls 001 and 004 DMRs will no longer be submitted under the GE NPDES Permit No. MA0003891. However, GE's NPDES Permit requires that the metal and toxicity composites to be made by compositing samples from the following outfalls: 001, 004, 005, 007, and 009. These two composites will continue to include an aliquot of water from outfall 001 and outfall 004, and will be reported on GE's DMR until further actions by the Agencies.

The results from Aquatec Biological Sciences for the acute toxicity test on the wastewater discharge sample indicated a No Observed Acute Effect Level (NOAEL) of 100%.



## II. Review of Toxicity Test Results

The wastewater discharge sample collected on August 6-7, 2006 was tested for 48-hour acute toxicity using *Daphnia pulex* organisms. The sample did not require dechlorination with sodium thiosulfate ( $\text{Na}_2\text{S}_2\text{O}_3$ ) prior to toxicity testing. Aquatec Biological Sciences reported the results of this toxicity testing as follows:

Effluent toxicity as NOAEL =	100%
Effluent toxicity as $\text{LC}_{50}$ =	>100%

No limit is established for wet weather NOAEL in the GE NPDES permit.

The following table summarizes the results of the control sample analyses performed by AquaTec during the acute toxicity bioassay:

<u>Control Analysis</u>	<u>Result</u>
Survival in 100% dilution water	100%
Survival in laboratory water	96%
Survival in laboratory water with 100 mg/L sodium thiosulfate	100%
$\text{LC}_{50}$ for <i>Daphnia pulex</i> in sodium chloride reference toxicant solution	3.839g NaCl/L August 8, 2006

The *Daphnia* survival rates in control solutions of upstream dilution water, laboratory water and reference toxicant solution were within acceptable limits, indicating that the results of the toxicity test are valid.

### III. Review of Wastewater Sampling Procedures

Composite samples of the individual NPDES wastewater discharges were collected over a 24-hour period. These samples were composited in a flow-weighted manner to generate a single combined discharge sample for toxicity testing and chemical analysis.

The 24-hour composite samples from the individual discharges were collected as follows:

Each automatic sampler (at outfall 001, 64T, 64G, and 09B) was programmed to collect approximately 7 liters of wastewater into a 10-liter glass container in a time-proportioned manner over a 24-hour period. Outfalls 004, 007, and 09A have been plugged and no longer flow.

All sample containers were packed in ice or refrigerated to keep the wastewater samples cold during the 24-hour collection period.

Flow meter readings were taken at the beginning and end of the 24-hour collection period to determine the total 24-hour flow for each wastewater discharge.

At the end of the 24-hour collection period, the discharge samples were taken to Building 64G where OB&G personnel composited these samples, in a flow weighted manner, to generate a single combined sample for the acute toxicity test and the chemical analyses, as follows:

The proportions of each individual discharge sample needed to produce a single combined sample were calculated from the flow measurements. The calculated sample volumes were then transferred from their original collection containers to a 2.5 or 5 gallon mixing container. The combined discharge sample was then split into various containers for toxicity testing and chemical analyses. These containers were shipped by vendor courier to AquaTec for toxicity testing and by FedEx (overnight) to Columbia Analytical Services for chemical analyses. All samples were chilled with ice packs during shipment.

A grab sample of Housatonic River water was collected on the second day of sampling at the Lyman Road Bridge in Hinsdale, MA, upstream of the GE site. This sample was split for chemical analysis and toxicity testing in a similar manner as the combined effluent sample (see above).

Details of the times and dates of sample collection as well as the names of the individuals collecting and transporting the samples are provided on the chain of custody forms in Appendix 3 of this report.

#### IV. Review of Individual NPDES Discharges

The following is a brief description of each of the seven outfalls that are monitored for acute and chronic toxicity in accordance with NPDES Permit MA0003891 issued to the General Electric Company, Pittsfield, MA.

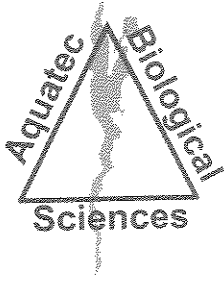
1. Outfall 001 is permitted to discharge storm water runoff from the oil/water separator in Building 31W to Silver Lake.
2. Outfall 004 is permitted to discharge storm water runoff to Silver Lake. (**Outfall plugged**)
3. Outfall 005 is permitted to discharge contact cooling water, non-contact cooling water, treated process water and storm water runoff from the Wastewater Treatment Plant in Building 64T, and treated groundwater from the Groundwater Treatment Plant in Building 64G to the Housatonic River. Monitoring samples are collected separately from the effluents of 64G and 64T. Both samples are included in the flow composite sample used for toxicity testing.
4. Outfall 007 is permitted to discharge stormwater runoff to the Housatonic River. (**Outfall plugged**)
5. Outfall 09A is permitted to discharge non-contact cooling water and stormwater runoff to Unkamet Brook. (**Outfall plugged**)
6. Outfall 09B is permitted to discharge non-contact cooling water, treated process water and stormwater runoff from the oil/water separator in Building 119W to Unkamet Brook.



**APPENDIX 1**

Chemical and Acute Toxicity Data

Aquatec Biological Sciences



# Aquatec Biological Sciences



Ecology



Environmental  
Toxicology



Natural Resource  
Assessments



Microbiology

August 22, 2006

Mr. Carl Beechler  
Columbia Analytical Services,  
1 Mustard Street – Suite 250  
Rochester, NY 14609

Dear Mr. Beechler:

Enclosed please find one bound and one unbound copies of our report of the results for whole effluent toxicity testing of samples received from GE Pittsfield, Massachusetts on August 7, 2006. Please note that the report contains pages 21a and 21b due to a page that was inserted (EPA Region 1 form) after the automated page numbering had been completed.

According to the Chain-of-Custody documentation the samples for Whole Effluent Toxicity (WET) Testing were collected on August 7, 2006. The samples were transported to Aquatec Biological Sciences, Inc. by courier and delivered on the same day. The effluent sample (Sample 32565) was logged in for the acute 48-hour static toxicity test with *Daphnia pulex*. The receiving water sample (Sample 32566) was logged in for dilution water. A subsample of each sample was checked for residual chlorine (not detected) and for alkalinity and hardness measurements at Aquatec Biological Sciences, Inc. The toxicity test was started on August 8, 2006, within the specified holding time.

At the conclusion of the toxicity test on August 10, 2006, a final count of surviving organisms was completed. The average survival was 96 - 100 percent in all test concentrations. Acute toxicity to *Daphnia pulex* was not detected, and the 48-hour LC50 reported as >100% effluent (Section 4.1 of the report).

If you have any questions regarding the report, please call Dr. Philip C. Downey or me.

Sincerely,

  
John Williams  
Manager, Environmental Toxicology

This report consists of the following numbered pages:

1 - 44

**Whole Effluent Toxicity Testing  
Of Wastewaters Discharged from  
The General Electric Plant  
Pittsfield, Massachusetts**

Samples Collected in August 2006

Submitted to:  
**General Electric  
Area Environmental & Facility Programs  
100 Woodlawn Avenue  
Pittsfield, Massachusetts 01201**

SDG number: 9752  
Effluent ID: Outfall Composite A7483C Aquatec sample number: 32565  
Receiving water ID: Housatonic River A7482R Aquatec sample number: 32566

Study Director: John Williams

August 22, 2006

Submitted by:  
**Aquatec Biological Sciences, Inc.  
273 Commerce Street  
Williston, Vermont 05454**  
Phone: (802) 860-1638 Fax: (802) 860-1638


Accreditation: NH Environmental Laboratory Accreditation Program  
NELAP / NELAC accredited for the requested analysis.




**Signatures and Approval**

**Submitted by:**

Aquatec Biological Sciences, Inc.  
273 Commerce Street  
Williston, Vermont 05454  
Phone: (802) 860-1638  
Fax: (802) 860-1638

  
\_\_\_\_\_  
Study Director  
John Williams

8/22/06  
\_\_\_\_\_  
Date

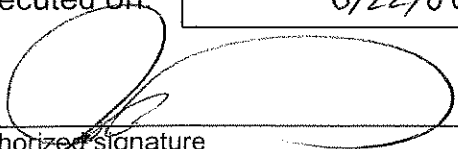
  
\_\_\_\_\_  
Quality Assurance Officer  
Philip C. Downey, Ph. D.

8/22/06  
\_\_\_\_\_  
Date

## Whole Effluent Toxicity Test Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: Date: 8/22/06

  
\_\_\_\_\_  
Authorized Signature

John Williams  
\_\_\_\_\_  
Name

Manager, Environmental Toxicology  
\_\_\_\_\_  
Title

Aquatec Biological Sciences, Inc.  
\_\_\_\_\_  
Laboratory

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## Summary of Static Acute Toxicity Test with *Daphnia pulex*

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Sponsor:	General Electric
Protocol title:	US EPA-821-R-02-012. <i>Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms</i> , 5 <sup>th</sup> Ed., October 2002. Method 2021.0
Aquatec SDG:	9752
Test material:	Composite effluent from the General Electric Company located in Pittsfield, Massachusetts
GE sample ID:	OUTFALL COMPOSITE A7483C
Dilution water:	Water from the Housatonic River (grab sample)
GE sample ID:	HOUSATONIC RIVER A7482R
Dates collected:	August 7, 2006
Date received:	August 7, 2006
Test dates:	August 8 - 10, 2006
Test concentrations:	100%, 75%, 50%, 35%, 15%, 5% effluent. Dilution water control (Housatonic River A7482R) Laboratory control 1 (culture water) Laboratory control 2 (culture water with sodium thiosulfate)
Results:	The 48-hour LC50 value was determined to be >100% effluent. The Acute No-Observed-Effect-Concentration (A-NOEC) was 100% effluent.

---

## 1.0 Introduction

### 1.1 Background

In 1972, amendments were made to the Clean Water Act (CWA) prohibiting the discharge of any pollutant from a point source to waters of the United States, unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Since the passing of the 1972 amendments to the CWA, significant progress has been made in cleaning up industrial wastewater and municipal sewage point source discharges. EPA defines point sources as discrete discharges via pipes or man-made ditches.

In 1984, the U.S. Environmental Protection Agency (EPA) released a national policy statement and a supporting document that recommended, where appropriate, effluent permit limits should be based on effluent toxicity as measured in aquatic toxicity tests. Generally, permits require that no toxic discharge occur in toxic amounts. The routine use of dilution-series toxicity tests and/or biologically-based criteria (i.e., invertebrate and vertebrate community studies) have become increasingly utilized to calculate or estimate the potential toxicity of a discharge.

EPA has the authority to delegate primary responsibility for the implementation, permitting, and enforcement of NPDES regulations to appropriate State regulatory agencies. Even when EPA delegates this authority to the states, EPA still maintains oversight responsibility.

### 1.2 Objective of the General Electric Study

The objective of this study was to measure the acute toxicity of the composite wastewater discharged by the General Electric facility located in Pittsfield, Massachusetts to the Housatonic River. The water flea, *Daphnia pulex*, is exposed to effluent and dilutions of effluent under static conditions. *Daphnia pulex* is routinely used by regulatory agencies and by contract laboratories for toxicity testing and EPA has published guidance documents for the performance of this test (U.S. EPA, 2002).

A toxicity test was conducted from August 8 - 10, 2006 at Aquatec Biological Sciences, Inc. (Aquatec) located in Williston Vermont. Aquatec Biological Sciences, Inc. holds NELAC accreditation for the requested whole effluent toxicity test. All original raw data and the final report produced for this study are stored in Aquatec's archives in Williston, Vermont.

## 2.0 Materials and Methods

### 2.1 Protocol

Procedures used in this acute toxicity test followed those described in the Aquatec Standard Operating Procedure (SOP) TOX2-001, Daphnid Acute R5, May 4, 2006. This SOP generally follows the standard methodology presented in U.S. EPA. 2002 (EPA-821-R-02-012). *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 5<sup>th</sup> Ed.,

October 2002, Method 2021.0 (as summarized in Appendix 2 of this report). A copy of the SOP is located in Appendix 6 (Controlled document, please do not copy or distribute.)

Additional SOPs used in this study are outlined below:

Title	SOP Number	Revision Date
Sample Acceptance	TOX1-017	Rev. 4, February, 2004
Hardness – total titrimetric method	TOX1-011	Rev. 3, May 2003
Alkalinity – total titrimetric method	TOX1-010	Rev. 6, April 2004
Thermo-Orion 145 A+ Conductivity Meter	TOX1-016	Rev. 1, April 2004
Dissolved oxygen	TOX1-006	Rev. 7, April 2004
pH measurement	TOX1-007	Rev. 2, April 2004
Salinity: refraction method	TOX1-008	Rev. 3, January, 2003

## 2.2 Effluent and Receiving Water Samples

The effluent sample (Outfall Composite A7483C) was collected by GE personnel from August 6 - 7, 2006. The receiving water sample (Housatonic River A7482R) was a grab collected from the Housatonic River on August 7, 2006. Samples were delivered to Aquatec on the same day. Upon receipt at Aquatec on August 7, 2006, the temperature of the temperature blank contained within the cooler was 1.9°C. The effluent and receiving water were prepared for testing and characterized (Table 1). The receiving water was the dilution water for preparing effluent concentrations and was also the reference control for statistical comparisons.

## 2.3 Control water

Laboratory control water for the toxicity test was a 1:1 mixture of laboratory reconstituted moderately hard water and 60-micron filtered river water collected from the Lamoille River, Vermont. This water was characterized for the following parameters: pH (7.4); dissolved oxygen (8.0 mg/L); conductivity (236 uS/cm). An additional dechlorination control (laboratory water with 0.2 N sodium thiosulfate added) was included in the test array, even though chlorine was not detected in the effluent sample.

## 2.4 Test Organism

Daphnids (*Daphnia pulex*), less than 24-hours old were obtained from Aquatec laboratory cultures. The culture system consisted of several 1-liter glass beakers containing approximately 1-liter of culture medium and up to approximately 100 daphnids. The culture water was laboratory reconstituted moderately hard water. Prior to use, the culture water was characterized:

Parameter	Result
Total hardness (mg/L)	Within range of 80-110 mg/L
Alkalinity (mg/L as CaCO <sub>3</sub> )	Within range of 60-70 mg/L
pH	Nominal 7.7 – 8.0

The culture area was maintained at a nominal temperature of 20°C (range 19 – 21 °C) with a regulated photoperiod of 16 hours light and 8 hours of darkness.

Daphnid cultures were fed a combination of green algae (*Selenastrum capricornutum*) and YCT obtained from Aquatic BioSystems of Fort Collins, Colorado. The cultures were fed a ration of *Selenastrum* and YCT daily Monday through Friday. Daphnids were transferred to new culture medium weekly.

Approximately 24 hours before toxicity test initiation, all daphnid neonates were removed from the culture beakers. Offspring produced within 24 hours were used for toxicity testing.

## 2.5 Test Procedures

Prior to initiating the toxicity test, a sub-sample of effluent and receiving water was decanted for subsequent alkalinity and hardness determination. A sub-sample was also checked for presence of chlorine to determine whether dechlorination of effluent is required. Chlorine was not detected, therefore dechlorination of the effluent was not required. The sample was then aerated and warmed to test temperature.

The toxicity test was conducted at effluent concentrations of 100%, 75%, 50%, 35%, 15%, and 5% effluent. Test concentrations were prepared by diluting the appropriate volume of effluent with dilution water to a total volume of 400 mL. Test solutions were then decanted to five replicate 30-mL cups per concentration, each containing approximately 20 mL of test solution. Three sets of control replicates were also included in the test array, set up as the effluent replicates. The controls included: Housatonic River water (dilution control), a laboratory control (a mix of moderately hard water and Lamoille River, VT water), and a laboratory control with sodium thiosulfate added (dechlorination control). The dechlorination control was included in the test array even though residual chlorine was not detected in the effluent.

Prior to testing, daphnids less than 24-hours old were collected from the cultures, pooled in Carolina bowl, and fed. The test was initiated when the daphnid neonates were transferred to the replicate test cups, five daphnids per cup. The toxicity test cups were incubated to maintain temperature in the range of 19°C to 21 °C. The lighting cycle was 16 hours light and eight hours dark and a luminance of approximately 80 ft-c.

## 2.6 Test Monitoring

The number of surviving daphnids was observed at approximately 24-hour intervals during the test, with the final count of surviving daphnids at approximately 48 hours. Temperature was measured daily in one replicate of each test treatment. The parameters of pH, dissolved oxygen, and conductivity were measured at the beginning and the end of the test.



Total hardness was measured by the EDTA titrimetric method and total alkalinity was measured by potentiometric titration to an endpoint of 4.5. The check for residual chlorine was performed with an acidified sample to which potassium iodide and starch indicator added. If chlorine was detected, the color was titrated away with 0.02 N sodium thiosulfate to determine the equivalent volume of 0.2 N sodium thiosulfate to add to effluent (if needed).

Dissolved oxygen was measured with a YSI Model 58 dissolved oxygen meter. A Beckman Phi 40 was used to measure pH. A Thermo-Orion Model 145 conductivity meter was used to measure conductivity. Salinity was measured with an Atago salinity refractometer.

### **2.7 Reference Toxicant Test**

A 48-hour standard reference toxicant (SRT) test was conducted concurrently with the effluent toxicity test. The SRT test was conducted as a quality control procedure to establish the health and sensitivity of the test organisms. The SRT included four concentrations of reagent grade sodium chloride (NaCl) with nominal concentrations of 0.75, 1.5, 3.0, 6.0, and 12 g NaCl/L. Four test replicates, each containing five daphnid neonates were test at each concentration and the laboratory control.

## **3.0 Statistics**

### **3.1 Statistical protocol**

The concentration-response relationships observed were characterized by the median lethal concentration (LC50), which was the calculated concentration lethal to 50 percent of the test organisms. If no concentrations resulted in 50% mortality, the LC50 was reported as greater than the highest concentration effluent (in this case >100% effluent), by direct observation. If greater than 50 percent mortality was observed in any effluent treatment, then a computer program (TOXIS2) was used to calculate the LC50 value, following the U.S. EPA statistical flowchart (Appendix 3).

The Acute-No-Observable-Effect Concentration (A-NOEC) was determined statistically using multiple comparison tests (TOXIS2), with the receiving water control as the reference.

## **4.0 Results**

### **4.1 Effluent Toxicity Test**

Results of effluent and receiving water characterizations performed at Aquatec as part of the toxicity test are presented in Table 1. Water quality parameters measured during the toxicity test are presented in Table 2. Measured temperatures during the test were within the range of 19°C to 21°C. The percent mortality data for the toxicity test are presented in Table 3. Acute toxicity was not

demonstrated during this evaluation. The 48-hour LC50 value was >100% effluent. The A-NOEC was 100% effluent.

#### **4.2 Reference Toxicant Test**

A standard reference toxicant (SRT) test was performed concurrently with the effluent toxicity test, using the same batch of daphnid neonates. The resulting 48-hour LC50, calculated by the Spearman-Kärber method, was 3.84 g NaCl/L with 95% confidence intervals of 3.41 – 4.32 g/L. This LC50 value was within the Control Chart limits generated for tests in our laboratory.

## **5.0 Qualifiers**

### **5.1 Qualifiers and Special Conditions**

Qualifiers or special conditions were not applicable to the reported toxicity test.

## References

American Public Health Association, American Water Works Association, and Water Pollution Control Federation (APHA). 1989. Standard Methods for the Examination of Water and Wastewater. 17<sup>th</sup> Edition

U.S. Environmental Protection Agency, 2002. 5<sup>th</sup> Edition. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*. EPA-821-R-02-012.

**Table 1. Results of the characterization of the General Electric Pittsfield Plant effluent and receiving water (Housatonic River).**

<b>Parameter</b>	<b>Effluent OUTFALL COMPOSITE A7483C</b>	<b>Housatonic River A7482R HOUSATONIC RIVER A7482R</b>
Temperature	20.4	20.3
pH	7.5	7.5
Alkalinity (as CaCO <sub>3</sub> ), mg/L	268	92
Hardness (as CaCO <sub>3</sub> ), mg/L	308	106
Dissolved oxygen, mg/L	8.5	8.9
Specific conductivity, uS/cm	1032	327
Salinity (‰)	0	0
Total residual chlorine (mg/L)	ND	ND

Note: Characterizations reflect conditions of sample after preparation for the toxicity test. ND = not detected

**Table 2. Water quality measurements recorded during the 48-hour static toxicity test with *Daphnia pulex* exposed to General Electric Pittsfield Plant effluent, June 7 - 9, 2006.**

Test Concentration (% effluent)	pH			Dissolved Oxygen (mg/L)			Temperature (°C)		
	0	24	48	0	24	48	0	24	48
Dechl. Control	7.7	-	7.4	8.1	-	8.2	20.9	20.5	20.8
Lab Control	7.4	-	7.4	8.0	-	8.2	20.8	20.5	21.0
Dilution Control	7.5	-	7.8	8.9	-	8.3	20.3	21.0	20.5
5%	7.5	-	7.8	8.9	-	8.4	20.4	20.4	20.4
15%	7.5	-	7.9	8.9	-	8.3	20.4	20.4	20.5
35%	7.5	-	8.0	8.8	-	8.3	20.4	20.6	20.7
50%	7.5	-	8.1	8.7	-	8.3	20.4	20.7	20.7
75%	7.5	-	8.2	8.6	-	8.3	20.4	20.5	20.5
100%	7.5	-	8.3	8.5	-	8.4	20.4	20.4	20.4

Measurements at time 0 were from a sub-sample of the prepared treatment. Measurements at time 48 were from the combined water from all replicates for each treatment.

Dechl. Control = laboratory water with sodium thiosulfate added (dechlorination control).

Lab Control = a mix of natural river water and moderately hard water.

Dilution Control = receiving water (Housatonic River).

**Table 3. Cumulative percent mortalities recorded during the 48-hour static acute toxicity test with *Daphnia pulex* exposed to General Electric Pittsfield Plant effluent, August 8 - 10, 2006.**

Effluent Conc. (%)	24-hour						48-hour					
	A	B	C	D	E	Avg	A	B	C	D	E	Avg
Dechl. Control	0	0	0	0	0	0	0	0	0	0	0	0
Lab Control	0	0	0	0	0	0	0	20	0	0	0	4
Rec. Control	0	0	0	0	0	0	0	0	0	0	0	0
5%	0	0	0	0	0	0	0	0	0	0	0	0
15%	0	0	0	20	0	4	0	0	0	20	0	4
35%	0	0	0	0	0	0	0	0	0	0	0	0
50%	0	0	0	0	0	0	0	0	0	0	0	0
75%	0	0	0	0	0	0	0	0	0	0	0	0
100%	0	0	0	0	0	0	0	0	0	0	0	0

Dechl. Control = laboratory water with sodium thiosulfate added (dechlorination control).

Lab Control = a mix of natural river water and moderately hard water.

Dilution Control = receiving water (Housatonic River).

Percent mortality = (# dead/5) X 100

## **Appendix 1 Chain-of-Custody Documentation**





## **Appendix 2**

### **Summary of Test Conditions**



**Appendix 3**  
**U.S. EPA Region 1 Toxicity Test Summary and**  
**Statistical Flow Chart**



# DETERMINATION OF THE NOAEC FROM A MULTI-EFFLUENT-CONCENTRATION ACUTE TOXICITY TEST

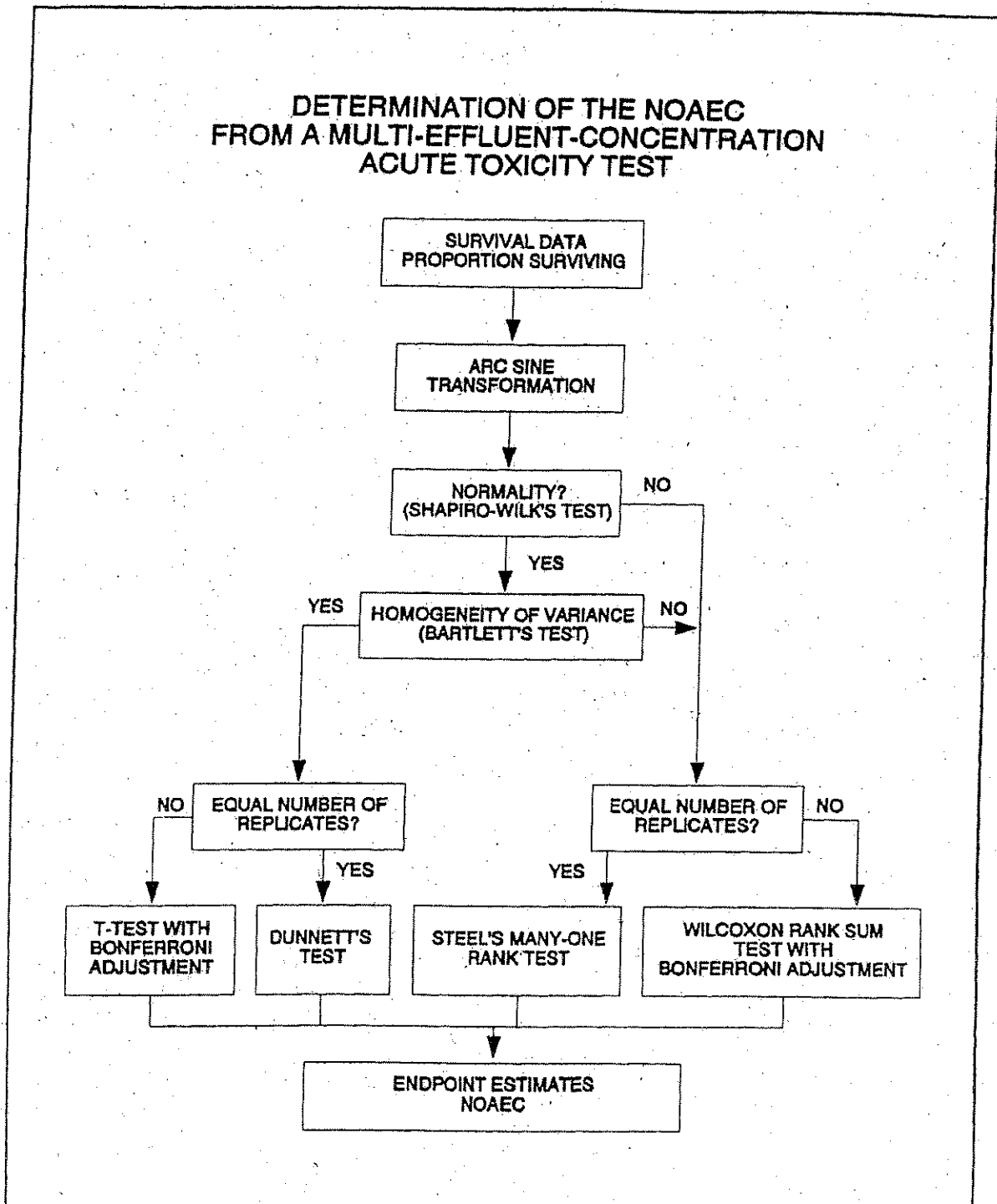


Figure 13. Flowchart for analysis of multi-effluent-concentration test data.

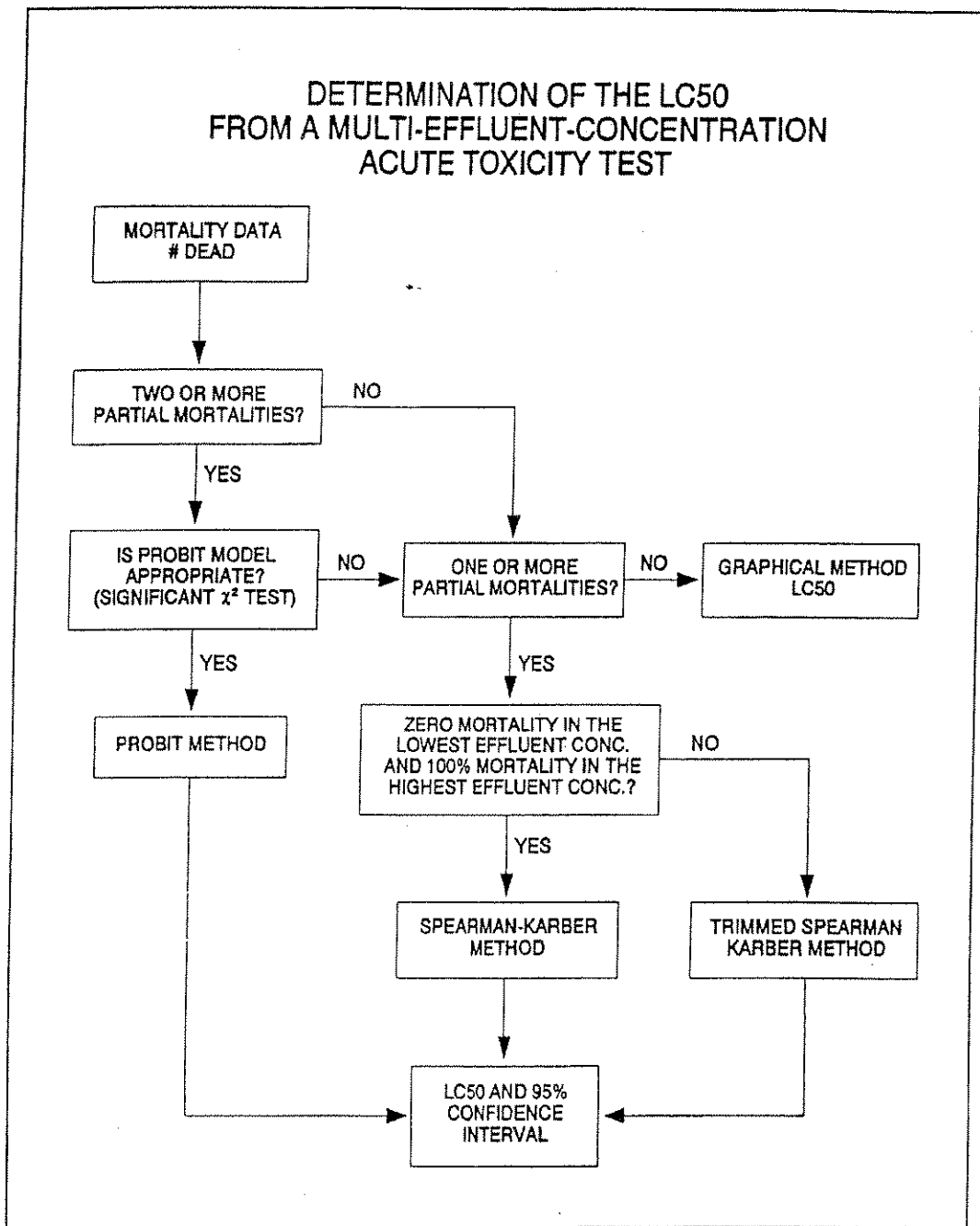


Figure 6. Flowchart for determination of the LC50 for multi-effluent-concentration acute toxicity tests.

**Appendix 4**  
**Bench Data, *Daphnia pulex* Acute Toxicity Test**

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Aquatec Biological Sciences, Inc.

=====

Test Date: 8/08/06  
 Sample Date: 8/07/06  
 Species: Daphnia pulex  
 Test Type: Acute - 48 hours

Test Number: 48817  
 Test Material: Effluent - Industrial %  
 Source: MA0003891  
 General Electric Company  
 Pittsfield, MA

=====

SUMMARY

=====

End Point	Day	Transformation	Conc	#Reps	Mean	StDev	% Surv
Proportion Alive	2	Arc sine sqrt w/ adj.	0.000 B	5	1.30	.106	
			X 0.000 D	5	1.35	0.000	
			X 5.000 D	5	1.35	0.000	
			X 15.000 D	5	1.30	.106	
			X 35.000 D	5	1.35	0.000	
			X 50.000 D	5	1.35	0.000	
			X 75.000 D	5	1.35	0.000	
			X 100.000 D	5	1.35	0.000	
Proportion Alive	2	No transformation	0.000 B	5	.96	.089	
			0.000 D	5	1.00	0.000	
			5.000 D	5	1.00	0.000	
			15.000 D	5	.96	.089	
			35.000 D	5	1.00	0.000	
			50.000 D	5	1.00	0.000	
			75.000 D	5	1.00	0.000	
			100.000 D	5	1.00	0.000	

X = indicates concentrations used in calculations

=====

- HYPOTHESIS TEST -

=====

End Point	Day	Transformation/Analysis	NOEC	LOEC	TU	MSE	MSD
Proportion Alive	2	Arc sine sqrt w/ adj.					
		Steel many-one rank test	>100.000	>100.000	< 1.00	.002	.080

48-h LC50: >100% (Direct observation 8/22/06) J



Aquatec Biological Sciences, Inc.

=====

WATER FLEA TEST DATA

=====

Test Number: 48817 ( ) Chronic (x) Acute 48 hours  
 Test Date: 8-Aug-06  
 Source: MA0003891 Test Material: EFF2 (%)

Conc	Rep	Cont.		Start	Daily Survival						Prop Alive	Total Young	Max Young
		No.	Sex		1	2	3	4	5	6			
0.00 B	1	F		5	5						1.00		
0.00 B	2	F		5	4						.80		
0.00 B	3	F		5	5						1.00		
0.00 B	4	F		5	5						1.00		
0.00 B	5	F		5	5						1.00		
0.00 D	1	F		5	5						1.00		
0.00 D	2	F		5	5						1.00		
0.00 D	3	F		5	5						1.00		
0.00 D	4	F		5	5						1.00		
0.00 D	5	F		5	5						1.00		
5.00 D	1	F		5	5						1.00		
5.00 D	2	F		5	5						1.00		
5.00 D	3	F		5	5						1.00		
5.00 D	4	F		5	5						1.00		
5.00 D	5	F		5	5						1.00		
15.00 D	1	F		5	5						1.00		
15.00 D	2	F		5	5						1.00		
15.00 D	3	F		5	5						1.00		
15.00 D	4	F		5	4						.80		
15.00 D	5	F		5	5						1.00		
35.00 D	1	F		5	5						1.00		
35.00 D	2	F		5	5						1.00		
35.00 D	3	F		5	5						1.00		
35.00 D	4	F		5	5						1.00		
35.00 D	5	F		5	5						1.00		
50.00 D	1	F		5	5						1.00		
50.00 D	2	F		5	5						1.00		
50.00 D	3	F		5	5						1.00		
50.00 D	4	F		5	5						1.00		
50.00 D	5	F		5	5						1.00		
75.00 D	1	F		5	5						1.00		
75.00 D	2	F		5	5						1.00		
75.00 D	3	F		5	5						1.00		
75.00 D	4	F		5	5						1.00		
75.00 D	5	F		5	5						1.00		
100.00 D	1	F		5	5						1.00		
100.00 D	2	F		5	5						1.00		
100.00 D	3	F		5	5						1.00		
100.00 D	4	F		5	5						1.00		
100.00 D	5	F		5	5						1.00		

QC V  
 KS 8/10/06

Client: GENERAL ELECTRIC, PITTSFIELD, MA  
 MA0003891

Test #: 48817

SDG: 9752

Test Description: *Daphnia pulex* 48-h daily renewal acute toxicity test

SURVIVAL DATA, SAMPLE 32565

Treatment (%)	Day 0	Day 1 # Surviving	Day 2 # Surviving
Rec. A	5	5	5
	Water B	5	5
	Contr C	5	5
	D	5	5
	E	5	5
5.0	A	5	5
	B	5	5
	C	5	5
	D	5	5
	E	5	5
15	A	5	5
	B	5	5
	C	5	5
	D	5	4
	E	5	5
35	A	5	5
	B	5	5
	C	5	5
	D	5	5
	E	5	5
50	A	5	5
	B	5	5
	C	5	5
	D	5	5
	E	5	5
75	A	5	5
	B	5	5
	C	5	5
	D	5	5
	E	5	5
100	A	5	5
	B	5	5
	C	5	5
	D	5	5
	E	5	5
Sample #	32565		
I/D/T	KS 8/8	KS 8/9 11:05	KS 8/10 10:55

10:50



Client: GENERAL ELECTRIC, PITTSFIELD, MA  
 MA0003891 OUTFALL 001

Test #: 48817

SDG: 9752

Test Description: *Daphnia pulex* 48-h daily renewal acute toxicity test

Treatment (%)	Parameter	Day 0	Day 1	Day 2
Lab Contr	pH	7.4		7.4
	DO	8.0		8.2
	Temp	20.8	20.5	21.0
	Cond.	236	--	241
Dechlorination Control	pH	7.7		7.4
	DO	8.1		8.2
	Temp	20.9	20.5	20.8
	Cond.	271	--	267
Rec. Water Contr	pH	7.5		7.8
	DO	8.9		8.3
	Temp	20.3	21.0	20.5
	Cond.	327	--	287
5.0	pH	7.5		7.8
	DO	8.9		8.4
	Temp	20.4	20.4	20.4
	Cond.	361	--	323
15	pH	7.5		7.9
	DO	8.9		8.3
	Temp	20.4	20.4	20.5
	Cond.	423	--	391
35	pH	7.5		8.0
	DO	8.8		8.3
	Temp	20.4	20.6	20.7
	Cond.	599	--	531
50	pH	7.5		8.1
	DO	8.7		8.3
	Temp	20.4	20.7	20.7
	Cond.	671	--	635
75	pH	7.5		8.2
	DO	8.6		8.3
	Temp	20.4	20.5	20.5
	Cond.	844	--	811
100	pH	7.5		8.3
	DO	8.5		8.4
	Temp	20.4	20.4	20.4
	Cond.	1032	--	983
Sample #		32565	32565	32565
I/D (2005)		RK 8-8-06	KS 8-9-06	KS 8-10-06

2006 J

### Daphnia pulex Culture Log

7/22 culture identified. 7-1-06 JG →

CULTURE ID	WATER RENEWAL? (Lot#)	FED (MWF Sel/YCT TuTh Sel)	CLEARED OF NEONATES? (TIME)	Culture Beakers Washed?	Temp. (°C)	DATE	INIT.
7/12A,B,C	✓ 71606mHW	yc/sel	✓ 10:00	—	20.9°C	7-21-06	JG
7/22 MASS	—	yc/sel	—	✓	20.9°C	7-22-06	KK
7/12 A,B,C cultures ended, New cultures started from mass culture 7/22.							
7/24 A,B,C 7/22	—	sel	—	—	—	7-25-06	KS
I	✓	yc/sel	✓	—	21.0	7-26-06	KS
7/24 A,B,C 7/22	—	Sel	—	—	—	7-27-06	I
7/24 A,B,C 7/22	✓	yc/sel.	—	—	20.8°C	7-28-06	JG
I	—	Sel	—	—	—	7-29-06	KS
7/24 A,B,C 7/22	—	sel	—	—	—	7-30-06	KS
I	✓	yc/sel	✓	✓	21.0°C	7-31-06	I
7/24 A,B,C 7/22	—	Sel	—	—	—	8-1-06	KS
I	✓	yc/sel	—	—	20.4°C	8-2-06	KK
7/24 A,B,C 7/22	—	Sel	—	—	—	8-3-06	KS
7/24 A,B,C 7/22	✓	yc/sel	✓	—	20.9°C	8-4-06	JG
I	—	Sel	—	—	—	8-6-06	KS
7/24 A,B,C 7/22	✓	yc/sel	✓ 11:10	✓	20.7	8-7-06	KS
I	✓	Sel	✓ 10:30	—	20.5	8-8-06	KS

Selenastrum Lot#: 71106 Sel / 72506 Sel  
 YC or YCT Lot#: 71306 YC

# Alkalinity and Hardness Worksheet

Sample Identifier	LIMS Identifier	Sub ID Code	Sampling Date	Sample Volume	Alkalinity			Hardness							
					Initial Titrant (ml)	Final Titrant (ml)	Analysis Date	Analyst	Alkalinity	Sample Volume	Initial Titrant (ml)	Final Titrant (ml)	Analysis Date	Analyst	Hardness
32565	Outfall Composite		8/8/06	25	4.1	10.8	8/9/06	KK	268.0	50	22.1	37.5	8/8/06	KS	308.0
32566	Housatonic River A		8/8/06	25	10.8	13.1	8/9/06	KK	92.0	50	37.7	43	8/8/06	KS	106.0

*J 8/24/06*



**Appendix 5**  
**Standard Reference Toxicant test Control Chart**

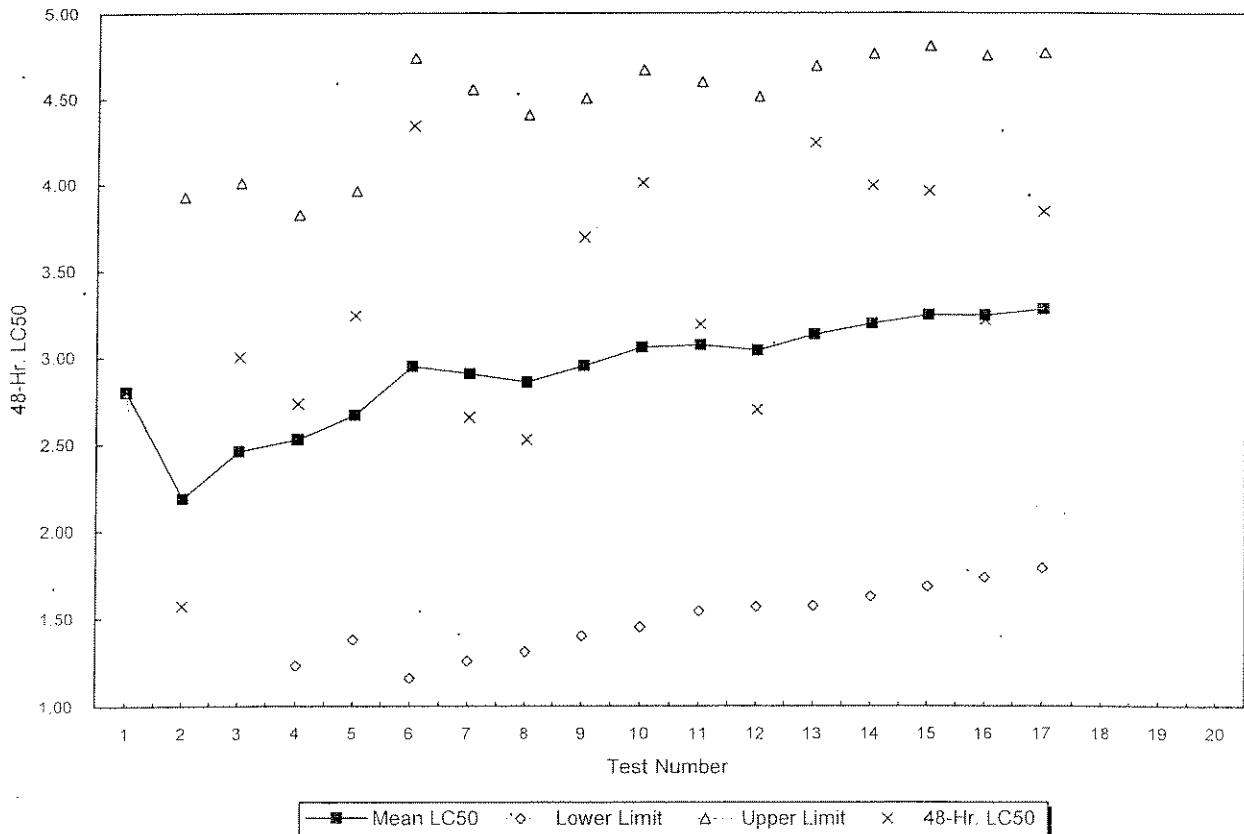


# Reference Toxicant Control Chart

## *Daphnia pulex*

### in Sodium chloride (g/L)

Test Number	Test Date	Organism		48-Hr. LC50	Mean LC50	Lower Limit	Upper Limit	Organism Source
		Age (Days)						
1	06/10/98	1		2.801	2.80	2.80	2.80	Aquatec Biological Sciences
2	09/17/98	1		1.57	2.19	0.44	3.93	Aquatec Biological Sciences
3	12/15/98	1		3.002	2.46	0.91	4.01	Aquatec Biological Sciences
4	10/08/05	1		2.733	2.53	1.23	3.82	Aquatic BioSystems
5	10/11/05	1		3.241	2.67	1.38	3.96	Aquatic BioSystems
6	10/19/05	1		4.342	2.95	1.16	4.74	Aquatic BioSystems
7	11/02/05	1		2.655	2.91	1.26	4.55	Aquatec Biological Sciences
8	11/08/05	1		2.527	2.86	1.31	4.41	Aquatec Biological Sciences
9	12/07/05	1		3.693	2.95	1.40	4.50	Aquatec Biological Sciences
10	01/05/06	1		4.009	3.06	1.45	4.67	Aquatec Biological Sciences
11	02/08/06	1		3.189	3.07	1.54	4.60	Aquatec Biological Sciences
12	03/11/06	1		2.698	3.04	1.57	4.51	Aquatec Biological Sciences
13	04/06/06	1		4.243	3.13	1.57	4.69	Aquatec Biological Sciences
14	05/10/06	1		3.992	3.19	1.62	4.76	Aquatec Biological Sciences
15	06/07/06	1		3.959	3.24	1.68	4.81	Aquatec Biological Sciences
16	07/11/06	1		3.215	3.24	1.73	4.75	Aquatec Biological Sciences
17	08/08/06	1		3.839	3.28	1.79	4.77	Aquatec Biological Sciences
18								
19								
20								



**Appendix 6**  
**SOP TOX2-001, Standard Operating Procedure for**  
**Daphnid (*Ceriodaphnia dubia*, *Daphnia magna*, and**  
***Daphnia pulex*) Acute Toxicity Test**

**Standard Operating Procedure for  
Daphnid (*Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*) Acute Toxicity Test  
NELAC METHODS / U.S. EPA METHODS 2002.0 AND 2021.0**

**1.0 IDENTIFICATION OF TEST METHOD**

This SOP describes procedures for conducting an acute toxicity test with daphnids. This test is used to estimate the acute toxicity of whole effluents or other aqueous samples to the cladocerans, *Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*. Aquatec Biological Sciences, Inc. holds NELAC accreditation for this method.

**2.0 APPLICABLE MATRIX OR MATRICES**

The described test is used to assess toxicity of wastewaters (effluents, influents), receiving waters, and other prepared aqueous solutions.

**3.0 DETECTION LIMIT**

Not applicable.

**4.0 SCOPE AND APPLICATION**

This SOP describes procedures for performing a static or static-renewal acute toxicity test with cladocerans, *Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*.

**5.0 SUMMARY OF TEST METHOD**

A summary of the test method is attached (Table 1 of this SOP). This test is used to estimate the acute toxicity of whole effluents or other aqueous samples to the freshwater cladocerans. Organisms are exposed, for 24, 48 or 96 hours, typically to five concentrations of effluent (or aqueous sample) and the controls. Acute toxicity is estimated by calculating the lethal concentration 50 value (LC50) and/or the acute no-observed-effect-concentration (A-NOEC). This procedure is based on the guidelines of EPA-821-R-02-012 (Methods 2002.0 and 2021.0).

**6.0 DEFINITIONS**

LC50: The computed concentration that results in 50 percent mortality of the test organisms (may be computed from 48-h or 96-h data).

A-NOEC: The acute no-observed-effect-concentration; The highest concentration resulting in no statistically significant reduction in survival relative to the control (requires four test replicates for statistical analysis).

**7.0 INTERFERENCES**

Not applicable.

**8.0 SAFETY**

Samples acquired for toxicity testing may contain unknown toxicants or health hazards. Protective equipment (e.g., lab coats, disposable gloves) should be worn when handling samples.

**9.0 EQUIPMENT AND SUPPLIES**

Calibrated Instrumentation and Water Quality Apparatus:

- pH meter
- Dissolved Oxygen (DO) meter
- Thermometer (accurate to 0.1°C)
- Conductivity meter
- Alkalinity titration apparatus
- Hardness titration apparatus

Additional Equipment:

- Test chambers (30-ml disposable cups), color coded
- Test board with randomized scheme, glass cover
- Light table
- Waste collection bucket

**Forms and Paperwork:**

Survival and chemistry data form  
Alkalinity and hardness data form

**10.0 REAGENTS AND STANDARDS**

Laboratory reconstituted water (soft water, moderately hard water, or hard water)  
Deionized water  
Reference toxicant solutions

**11.0 SAMPLE COLLECTION, PRESERVATION, SHIPMENT, AND STORAGE**

Samples for acute toxicity tests are typically collected, cold-preserved, and shipped to Aquatec. Sample acceptance and log-in procedures are outlined in SOP TOX1-017. After receipt at Aquatec, samples should be refrigerated when not being prepared for use in toxicity tests. The holding time for effluent samples is 36 hours from the time of collection until the time of first use.

**12.0 QUALITY CONTROL**

The acute toxicity test is judged to be acceptable and to have met Quality Control standards if the associated dilution water and laboratory control meet the survival criterion of 90% or greater. Also, the test conditions must be within the guidelines described in the protocol (Table 1). Standard reference toxicant (SRT) tests (48-h acute with sodium chloride as the toxicant) should be performed with a representative sub-set of the test organisms and result in an LC50 within the boundaries of the control chart. Deviations from acceptance standards should be documented and may result in the test being viewed as "conditionally acceptable" or "unacceptable" (See Section 19.0 below).

**13.0 CALIBRATION AND STANDARDIZATION**

Not applicable for the toxicity test. Any instrumentation (e.g., water quality instrumentation) required for conducting the test must be calibrated on a daily basis following the relevant SOP or instrument guidelines.

**14.0 PROCEDURE****14.1 Test System and Conditions**

The test system and environmental conditions for the daphnid acute toxicity test are summarized in Table 1.

**14.2 Test Organisms****Procurement and Documentation**

Test organisms for the daphnid acute test are obtained from Aquatec's laboratory cultures or commercial supplier. Neonates less than 24-h old are used for testing. Neonates collected for testing may be held in individual culture cups until distributed to tests. Feed neonates approximately 2 hours prior to test initiation by pipeting 0.1 ml yeast-Cerophyll-trout chow (YCT) and *Selenastrum capricornutum* to all neonate holding cups. Store the culture cups, covered, at test temperature ( $25 \pm 1^\circ\text{C}$  or  $20 \pm 1^\circ\text{C}$ ).

**Evaluation of Daphnid Condition and Acclimation**

If, during examination, it appears that more than 10 percent of the parent females or the neonates collected for the test have died during the holding period preceding the test, notify the Toxicity Laboratory Director immediately. A decision will be made regarding the possibility of collecting an alternate stock of neonates for testing. If the test is to be delayed, document the reason on the Project Documentation form. Also, it may be necessary to notify the client.

Ordinarily, *C. dubia* neonates are maintained in laboratory water (1:1 mix of Lamoille River water and moderately hard water) up until the time of test initiation. *D. magna* neonates are maintained in hard water while *D. pulex* neonates are maintained in moderately hard water. The temperature of the neonate stock must be maintained at  $25 \pm 1^\circ\text{C}$  or ( $20 \pm 1^\circ\text{C}$ ). Return parent stock females

**Standard Operating Procedure for  
Daphnid (*Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*) Acute Toxicity Test  
NELAC METHODS / U.S. EPA METHODS 2002.0 AND 2021.0**

**1.0 IDENTIFICATION OF TEST METHOD**

This SOP describes procedures for conducting an acute toxicity test with daphnids. This test is used to estimate the acute toxicity of whole effluents or other aqueous samples to the cladocerans, *Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*. Aquatec Biological Sciences, Inc. holds NELAC accreditation for this method.

**2.0 APPLICABLE MATRIX OR MATRICES**

The described test is used to assess toxicity of wastewaters (effluents, influents), receiving waters, and other prepared aqueous solutions.

**3.0 DETECTION LIMIT**

Not applicable.

**4.0 SCOPE AND APPLICATION**

This SOP describes procedures for performing a static or static-renewal acute toxicity test with cladocerans, *Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*.

**5.0 SUMMARY OF TEST METHOD**

A summary of the test method is attached (Table 1 of this SOP). This test is used to estimate the acute toxicity of whole effluents or other aqueous samples to the freshwater cladocerans. Organisms are exposed, for 24, 48 or 96 hours, typically to five concentrations of effluent (or aqueous sample) and the controls. Acute toxicity is estimated by calculating the lethal concentration 50 value (LC50) and/or the acute no-observed-effect-concentration (A-NOEC). This procedure is based on the guidelines of EPA-821-R-02-012 (Methods 2002.0 and 2021.0).

**6.0 DEFINITIONS**

LC50: The computed concentration that results in 50 percent mortality of the test organisms (may be computed from 48-h or 96-h data).

A-NOEC: The acute no-observed-effect-concentration; The highest concentration resulting in no statistically significant reduction in survival relative to the control (requires four test replicates for statistical analysis).

**7.0 INTERFERENCES**

Not applicable.

**8.0 SAFETY**

Samples acquired for toxicity testing may contain unknown toxicants or health hazards. Protective equipment (e.g., lab coats, disposable gloves) should be worn when handling samples.

**9.0 EQUIPMENT AND SUPPLIES**

Calibrated Instrumentation and Water Quality Apparatus:

- pH meter
- Dissolved Oxygen (DO) meter
- Thermometer (accurate to 0.1°C)
- Conductivity meter
- Alkalinity titration apparatus
- Hardness titration apparatus

Additional Equipment:

- Test chambers (30-ml disposable cups), color coded
- Test board with randomized scheme, glass cover
- Light table
- Waste collection bucket

## Forms and Paperwork:

Survival and chemistry data form  
Alkalinity and hardness data form

**10.0 REAGENTS AND STANDARDS**

Laboratory reconstituted water (soft water, moderately hard water, or hard water)  
Deionized water  
Reference toxicant solutions

**11.0 SAMPLE COLLECTION, PRESERVATION, SHIPMENT, AND STORAGE**

Samples for acute toxicity tests are typically collected, cold-preserved, and shipped to Aquatec. Sample acceptance and log-in procedures are outlined in SOP TOX1-017. After receipt at Aquatec, samples should be refrigerated when not being prepared for use in toxicity tests. The holding time for effluent samples is 36 hours from the time of collection until the time of first use.

**12.0 QUALITY CONTROL**

The acute toxicity test is judged to be acceptable and to have met Quality Control standards if the associated dilution water and laboratory control meet the survival criterion of 90% or greater. Also, the test conditions must be within the guidelines described in the protocol (Table 1). Standard reference toxicant (SRT) tests (48-h acute with sodium chloride as the toxicant) should be performed with a representative sub-set of the test organisms and result in an LC50 within the boundaries of the control chart. Deviations from acceptance standards should be documented and may result in the test being viewed as "conditionally acceptable" or "unacceptable" (See Section 19.0 below).

**13.0 CALIBRATION AND STANDARDIZATION**

Not applicable for the toxicity test. Any instrumentation (e.g., water quality instrumentation) required for conducting the test must be calibrated on a daily basis following the relevant SOP or instrument guidelines.

**14.0 PROCEDURE****14.1 Test System and Conditions**

The test system and environmental conditions for the daphnid acute toxicity test are summarized in Table 1.

**14.2 Test Organisms****Procurement and Documentation**

Test organisms for the daphnid acute test are obtained from Aquatec's laboratory cultures or commercial supplier. Neonates less than 24-h old are used for testing. Neonates collected for testing may be held in individual culture cups until distributed to tests. Feed neonates approximately 2 hours prior to test initiation by pipeting 0.1 ml yeast-Cerophyll-trout chow (YCT) and *Selenastrum capricornutum* to all neonate holding cups. Store the culture cups, covered, at test temperature ( $25 \pm 1^{\circ}\text{C}$  or  $20 \pm 1^{\circ}\text{C}$ ).

**Evaluation of Daphnid Condition and Acclimation**

If, during examination, it appears that more than 10 percent of the parent females or the neonates collected for the test have died during the holding period preceding the test, notify the Toxicity Laboratory Director immediately. A decision will be made regarding the possibility of collecting an alternate stock of neonates for testing. If the test is to be delayed, document the reason on the Project Documentation form. Also, it may be necessary to notify the client.

Ordinarily, *C. dubia* neonates are maintained in laboratory water (1:1 mix of Lamoille River water and moderately hard water) up until the time of test initiation. *D. magna* neonates are maintained in hard water while *D. pulex* neonates are maintained in moderately hard water. The temperature of the neonate stock must be maintained at  $25 \pm 1^{\circ}\text{C}$  or ( $20 \pm 1^{\circ}\text{C}$ ). Return parent stock females

from the neonate cups to the source batch culture. *Ceriodaphnia dubia* are cultured in individual culture cups (one organism per cup) maintained at  $25 \pm 1^{\circ}\text{C}$ .

If acclimation to a client's receiving water is required, gradual water changes should be made (eg., 25%-50% hourly) to the parent organisms to receiving water. Neonate release and collection should occur in 100 percent receiving water, if acclimation is required.

#### Food

At the time of neonate collection, or on the morning of a scheduled test, feed neonates in each cup 0.1 ml Selenastrum and 0.1 ml yeast-Cerophyll-trout chow (YCT).

#### Sample Preparation

Procedures for effluent and diluent sample preparation are described in a separate SOP TOX1-013 ("Preparation of Effluent, Aqueous Samples, and Receiving Water for Toxicity Tests". The typical dilution factors are 0.5, however, consult applicable client permits for the appropriate dilution factor and included permit-limit concentrations when required.

#### 14.3 Initiate the Test

##### Prepare Test Chambers

For a test where receiving water is used as the diluent, an additional laboratory control must be included in the test array. New 30-mL disposable plastic condiment cups are used as test chambers. Each test treatment will have four true replicates (no water connection); therefore, 28 test cups will be required. When laboratory water is used as the diluent, 24 test cups are required. Label as:

Client Code  
Treatment  
Replicate (A, B, C, D)

##### Measure Initial Chemistries

Remove an aliquot (approximately 100 ml) from each test dilution and the controls. This aliquot is used to measure the following parameters: pH, DO, temperature, and conductivity. Record the data directly on the Toxicity Test Data Form for Day 0. The temperature of the solutions must be within a range of  $\pm 1^{\circ}\text{C}$  of the selected test temperature ( $20^{\circ}\text{C}$  or  $25^{\circ}\text{C}$ ). Temperature, DO, and pH are to be recorded daily for all test concentrations.

##### Recommended water chemistry at time of test initiation

If solutions are not within the ranges specified below, notify the Toxicity Laboratory Director.

pH - acceptable range, 6.0-9.0

DO - acceptable range, 8.0-8.9 mg/L ( $20^{\circ}\text{C}$ ); 7.4-8.1 ( $25^{\circ}\text{C}$ )

Temperature - acceptable range,  $19-21^{\circ}\text{C}$  or  $24-26^{\circ}\text{C}$

Conductivity - often has a pattern of increasing conductance with increasing sample strength.

Collect a sub-sample of the control and 100% effluent solutions subsequent analysis of hardness and alkalinity. Label and store in a refrigerator at  $4^{\circ}\text{C}$ .

If test solutions are to be stored temporarily prior to starting the test, store the test solutions at the target test temperature.

Decant test solutions to the appropriate test cups, 25 ml per cup. Place the test cups in randomized positions on the test board. Water chemistry measurements are recorded for one replicate of each treatment each day of the test.

#### Prepare and distribute test organisms

Select approximately 20 brood cups (containing neonates collected for the test), each with 8 or more neonates. Pool neonates in a crystallizing dish prior to distribution to the test. Randomly distribute neonates to test containers (5 per test container) with a transfer pipet.

Record the date / time of test start along with initials on the data form.

#### **Aeration**

Do not aerate daphnid acute tests.

#### **Feeding**

Daphnids are not fed during acute toxicity test of 24-48 hours duration. If the test duration is 96 hours the test animals are fed 2 hours prior to the 48 hour water change.

### **14.4 Monitoring the test**

#### **Test solution renewal (if required) and biological monitoring**

Test solutions in each test cup routinely are not renewed for 48 hour tests (unless the project protocol specifies daily renewal). If the test duration is 96 hours, renew test solutions at 48 hours (or daily, if specified in the project-specific protocol). During the renewal procedure, take care to avoid injuring neonates. Renew the controls first, then from low concentrations to higher test concentrations. This procedure will minimize the potential for back-contamination of a lower test concentration with a higher test concentration. The renewal procedure is conducted over a light table.

Remove the test board from the test rack and remove the glass cover. Carefully measure the temperature of one replicate of each test treatment. Record the data on the Final Chemistry Data form.

Fill four new cups coded for laboratory control with approximately 25 mL of laboratory control water. Remove laboratory control Replicate A test cup from the test board.

Transfer all surviving daphnids with a large-bore pipet to the new test cup containing new control solution. Record the number of survivors in the appropriate box for laboratory control, Replicate A.

Continue the water changes until all surviving animals in each treatment have been transferred to "new" water. Pool the "old test water" from the old test cups into a beaker. This must be saved for final chemistry analysis, when required. When renewals have been completed, record initials, date, and time for renewal in the remarks section of the daphnid acute data form. Replace all test cups in the assigned position on the test board.

#### **Final Chemistry (daily during test, if required)**

Measure the temperature, pH, and D.O., and conductivity of the pooled water sample decanted from the four replicates for each test treatment. It is preferable to do this immediately after completing the renewal to obtain an accurate representation of the test conditions. Discard the solution in the appropriate waste receptacle.

### **14.5 Termination of the Toxicity Test**

The daphnid acute test may be ended at 24 hours, 48 hours, or 96 hours depending on permit requirements or the project-specific protocol. The guidelines for actual duration of the test are: 24-h test ( $\pm$  15 minutes from time of test start); 48-h test ( $\pm$  30 minutes from time of test start); and 96-h test ( $\pm$  60 minutes from time of test start).

#### **Daphnid survival (end of test)**

For each replicate, determine the number of live daphnids remaining and record the results in the appropriate data box of the daphnid acute data form. A daphnid is scored as "alive" if any activity



or self-propelled movement is observed. If necessary, examine organisms under a dissecting microscope to determine the number surviving.

Record the time of test completion in remarks section of the daphnid acute data form.

#### **Final Chemistry (end of test)**

Measure and record temperature of one replicate from each test concentration. Combine the test solution from each replicate of each test concentration. Measure and record the final chemistry parameters (conductivity, pH and DO) as specified in 3.2.1 above.

#### **15.0 CALCULATIONS**

The 48-h LC50 (or 96-h) and A-NOEC (if required) are calculated using the TOXIS2 software program. Enter the test data into the TOXIS2 template prepared for each client. Run the statistical program for the EPA Acute Toxicity Test flow chart (EPA-821-R-02-012 Section 11 Figures 12 and 13) and print the entered test data and the statistical results. Check the entered data against the original hand-written test data and record the date and initials. Place the statistical printouts in the project folder (by SDG) and return the folder with all paperwork to the project holding file.

#### **16.0 METHOD PERFORMANCE**

Test conditions should be at or near the limits outlined in the Protocol (Table 1).

#### **17.0 POLLUTION PREVENTION**

Effluents and receiving waters used in toxicity tests are stored refrigerated until the test data have been reviewed and deemed acceptable by the Laboratory Manager or the Director. Contact the Laboratory Manager or Director prior to discarding any stored samples. Effluent and receiving water samples may be discarded following a period of chlorination (e.g., 30 minutes). Effluent samples that have exhibited high toxicity in low test concentrations should be discarded in the "Aqueous Waste" drum for disposal by a certified waste handler. Other samples containing unknown or suspected toxic contaminants should be discarded in the "Aqueous Waste" drum.

#### **18.0 DATA ASSESSMENT AND ACCEPTANCE CRITERIA FOR QUALITY CONTROL MEASURES**

The Laboratory Manager and/or the Laboratory Director will review test data to ensure that all elements of the data package are available and complete (Log-in work sheets, test IDs, Chain-of-Custody documentation, toxicity test benchsheets, organism records, and SRT data). The reviewer will check to package for transcription errors, clarity of observations and notations, initials, and completeness. The reviewer will also compare the test data to the Quality Control standards outlined in Section 12.0 above. Any deficiencies will be addressed and resolved (with appropriate notation) prior to assembling the package for the final report.

#### **19.0 CORRECTIVE ACTIONS FOR OUT-OF-CONTROL DATA**

Data that do not meet Quality Control standards will be assessed and a decision will be made whether to reject the test data and deemed "unacceptable" (requiring a repeated test) or "provisionally acceptable" (requiring a qualifier in the final report). An example of and unacceptable test could include one where the controls fail to meet the 90% survival requirement. A designation of a "provisionally acceptable" test might include one where samples were received outside of prescribed holding temperatures or times.

#### **20.0 CONTINGENCIES FOR HANDLING OUT-OF-CONTROL OR UNACCEPTABLE DATA**

Analysts experiencing an "out-of-control" event (e.g., test replicate spills, test solutions improperly prepared, test temperatures out of target range, etc.) should note the event on the bench sheet and also notify the Laboratory Manager or Laboratory Director. A decision will be made by the Laboratory Manager or Laboratory Director as to whether to continue the test (with the appropriate qualifier) or whether to terminate the test. If the test is terminated, the client should be notified so that re-sampling and re-testing can be scheduled as soon as possible.

**21.0 WASTE MANAGEMENT**

See 17.0 above.

**22.0 REFERENCES**

The test procedure is based upon the guidelines outlined in EPA-821-R-02-012, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (5<sup>th</sup> Ed.). Regional guidelines may require in slight modifications of the test protocol (e.g., solution renewals, test duration, target test temperature).

**23.0 TABLES, DIAGRAMS, FLOW CHARTS, AND VALIDATION DATA**

Refer to Tables 12 and 13 (pp. 51 – 54 of EPA-821-R-02-012) and the EPA Statistical Flow Chart, Figures 12 and 13 of EPA-821-R-02-012 Section 11 and related discussions within that document.

**24.0 TRAINING**

Laboratory analysts performing this procedure must receive instruction from a previously trained analyst. Individual parts of the overall procedure may be performed under the guidance of a previously-trained analyst.

To be qualified for the overall procedure outlined in this SOP, the analyst must:

- Read this SOP.
- Receive verbal and visual instruction.
- Be trained on pertinent associated SOPs.

Approvals:

Laboratory Manager:	Date:
---------------------	-------

**Table 1. Test Protocol**

PROTOCOL: EPA 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Methods 2002.0 (*Ceriodaphnia dubia*) and 2021.0 (*Daphnia magna* and *Daphnia pulex*) acute toxicity tests.

1. Test type:	Static, no renewal; or daily renewal
2. Test temperature:	25 ± 1°C (or 20 ± 1°C)
3. Light quality:	Ambient laboratory illumination
4. Photoperiod:	16 hr. light, 8 hr. dark
5. Test chamber size:	30 ml
6. Test solution volume:	25 ml / replicate
7. Renewal of test concentrations:	None if static test, daily if renewal test
8. Age of test organisms:	Less than 24 h
9. No. organisms / test chamber:	5
10. No. of replicate chambers / concentration:	4
11. No. of organisms / concentration:	20
12. Feeding regime:	Feed 0.1 ml of YTC and algal suspension prior to testing. Not fed during test for 48-h tests. Feed 2 hours prior to 48-h (before renewal) for 96-h tests
13. Cleaning:	None
14. Aeration:	None
15. Dilution water:	Receiving Water or laboratory water
16. Test concentrations:	6.25, 12.5, 25, 50, 100% (unless specified otherwise by permit)
17. Laboratory control:	Reconstituted water (soft, moderately hard, or hard)
18. Test duration:	48 h; 96 h
19. Monitoring:	Day 0: temperature, DO, pH, and conductivity. Day 1: temperature. Day 2 (or 4): temperature, DO, pH, and conductivity. Hardness, alkalinity on each new sample. Biological monitoring daily
19. End points:	Survival
20. Reference toxicant test:	Sodium chloride 48-h LC50
21. Test acceptability (Control performance):	90% or greater survival
22. Data interpretation:	LC50 / A-NOEC using TOXIS2 statistical program



## **APPENDIX 2**

### **Laboratory Reports**

Columbia Analytical Services, Inc.  
O'Brien & Gere, Inc.

NPDES Sampling  
GE Pittsfield  
Toxicity pH

Date: 8/7/06

Acute Dry   
Acute Wet   
Chronic  (Day 1,2 or 3)

Split Sample  
A.TOX / C.TOX # 1  
AUG. 2006

Effluent Composite

Sample # A7483C  
Date 8-7-06  
Time 11:00 AM  
pH 7.77 su

River/Dilution Water

Sample # A7482 R  
Date 8-7-06  
Time 8:15 AM  
pH 7.92 su

Mark Wasnowsky 8-7-06  
Signed & Dated

COLUMBIA ANALYTICAL SERVICES

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483C

---

Date Sampled : 08/07/06 11:00                      Order #: 923277                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.567	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	152	MG/L	08/10/06	21:43	40.0
TOTAL ALKALINITY	310.1	2.00	277	MG/L	08/15/06	09:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	6.99	MG/L	08/12/06	00:56	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0796	MG/L	08/14/06	14:56	1.0
TOTAL SOLIDS	160.3	10.0	554	MG/L	08/11/06	14:15	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	2.60	MG/L	08/09/06	13:30	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7482R

---

Date Sampled : 08/07/06 08:15                      Order #: 923275                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.0500 U	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	18.2	MG/L	08/10/06	21:26	10.0
TOTAL ALKALINITY	310.1	2.00	105	MG/L	08/15/06	09:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	6.66	MG/L	08/12/06	00:18	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	08/14/06	14:56	1.0
TOTAL SOLIDS	160.3	10.0	159	MG/L	08/11/06	14:15	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	2.70	MG/L	08/09/06	13:30	1.0

---



COLUMBIA ANALYTICAL SERVICES

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483CCN

---

Date Sampled : 08/07/06 11:00                      Order #: 923289                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0279	MG/L	08/17/06	14:35	1.0

---

COLUMBIA ANALYTICAL SERVICES

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7482RCN

---

Date Sampled : 08/07/06 08:15                      Order #: 923288                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0100 U	MG/L	08/15/06	14:57	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483CTM

---

Date Sampled : 08/07/06 11:00      Order #: 923286      Sample Matrix: WATER  
Date Received: 08/08/06      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/14/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
CALCIUM	200.7	1.00	68.6	MG/L	08/14/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
MAGNESIUM	200.7	1.00	28.5	MG/L	08/14/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/14/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483CDM

---

Date Sampled : 08/07/06 11:00      Order #: 923282      Sample Matrix: WATER  
Date Received: 08/08/06      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/14/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/14/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
ZINC	200.7	0.0200	0.0252	MG/L	08/14/06	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7482RTM

---

Date Sampled : 08/07/06 08:15                      Order #: 923287                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/14/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
CALCIUM	200.7	1.00	27.4	MG/L	08/14/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
MAGNESIUM	200.7	1.00	9.59	MG/L	08/14/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/14/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0

---

## **APPENDIX 3**

### **Chain of Custody Forms**



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

An Employee - Owned Company One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (565) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE 07 OF 08

SR # \_\_\_\_\_  
CAS Contact \_\_\_\_\_

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	PRELIMINARY RESULTS	REMARKS/ ALTERNATE DESCRIPTION	
Project Manager		Report CC							
NPDES PERMIT		J. NICHOLSON		TSS EPA 160.2					
Company Address		159 PLASTICS AVE, BUDG 59		OAG EPA 160.4					
Phone #		PITTSFIELD MA 01201		BODEPA 405.1					
FAX #		(413) 448-5915		CYANIDE EPA 351.4					
Sampler's Signature		C. Cole		METALS, DISSOLVED					
Sampler's Printed Name		SEAN COOLE		METALS, TOTAL					
FOR OFFICE USE ONLY		LAB ID		DATE		SAMPLING TIME		MATRIX	
CLIENT SAMPLE ID		O9C-A7470		7-3-06		11:15 AM		H2O	
O9T-A7492		8-7-06		7:00 AM					
O9G-A7495				7:00 AM					
O9C-A7497				8:00 AM					
O9B-A7499				10:45 AM					
O9B-A7499				10:55 AM					
O05-A7501A7502				11:00 AM					
O05-A7501A7502				11:00 AM					
A7482RCN		923288		8-15-06					
A7483CCN		923289		11:00 AM					
SPECIAL INSTRUCTIONS/COMMENTS									
Metals									
- SAMPLES PACKED IN ICE									
See OAPP <input type="checkbox"/>		SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____		RECEIVED BY		CUSTODY SEALS: Y N		RECEIVED BY	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature		Signature		Signature		Signature		Signature	
Printed Name		Printed Name		Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time	
8-7-06 2:00 PM		8/6/06 9:15							
SUBMISSION #		22672759		RECEIVED BY		RECEIVED BY		RECEIVED BY	
REPORT REQUIREMENTS		TURNAROUND REQUIREMENTS		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION	
I. Results Only		RUSH (SURCHARGES APPLY)		PDF		BILL TO:		SUBMISSION #	
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)		24 hr 46 hr 5 day						RECEIVED BY	
III. Results + QC and Calibration Summaries		STANDARD		REQUESTED FAX DATE		REQUESTED REPORT DATE		RECEIVED BY	
IV. Data Validation Report with Raw Data		REQUESTED REPORT DATE						RECEIVED BY	
V. Specialized Forms / Custom Report								RECEIVED BY	
Edits Yes No								RECEIVED BY	







# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Musliard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE OF

SR # \_\_\_\_\_  
CAS Contact \_\_\_\_\_

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	NUMBER OF CONTAINERS	GCMs VOAs □ 8260 □ 824 □ CLP GCMs SVOAs □ 8270 □ 825 □ CLP GC VOAs □ 8021 □ 601/602 PESTICIDES □ 8081 □ 608 □ CLP PCBs □ 8082 □ 608 □ CLP METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) METALS, PHOSPHORUS (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
Client Sample ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX					
A7482R	923225	8-7-06	8 AM	H2O	1				
A7483C	923227		11:00 AM		1				
A7482R	923205		8:15 AM		3				
A7483C	923277		11:00 AM		3				

SPECIAL INSTRUCTIONS/COMMENTS Metals <i>0 Samples Packed in 1 ea</i>	TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 24 hr <input type="checkbox"/> 48 hr <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> STANDARD	REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Valuation Report with Raw Data V. Spicafixed Forms / Custom Report E data <input type="checkbox"/> Yes <input type="checkbox"/> No	INVOICE INFORMATION PO# BILL TO SUBMISSION #: RECEIVED BY
	REQUESTED FAX DATE REQUESTED REPORT DATE	RECEIVED BY RELINQUISHED BY	Signature Printed Name Firm Date/Time

SAMPLE RECEIPT: CONDITION/COOLER TEMP: RELINQUISHED BY <i>Mark Wasniewski</i>	RECEIVED BY <i>Mark Wasniewski</i>	CUSTODY SEALS: Y N RELINQUISHED BY
Signature <i>Mark Wasniewski</i>	Signature <i>Mark Wasniewski</i>	Signature
Printed Name <i>Mark Wasniewski</i>	Printed Name <i>Mark Wasniewski</i>	Printed Name
Firm <i>ASG</i>	Firm <i>ASG</i>	Firm
Date/Time <i>8-7-06 2:00 PM</i>	Date/Time <i>8/8/06 9:15</i>	Date/Time

# Cooler Receipt And Preservation Check Form

Project/Client CE Submission Number \_\_\_\_\_

Cooler received on 8/2/06 by [Signature] COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO N/A
4. Did any VOA vials have significant air bubbles? YES NO
5. Were Ice or Ice packs present? CAS/ROC, CLIENT
6. Where did the bottles originate? \_\_\_\_\_
7. Temperature of cooler(s) upon receipt: 3.1 3.8 \_\_\_\_\_

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes  
 No No No No No

If No, Explain Below

Date/Time Temperatures Taken: 8/2/06 9:50  
 Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_

PC Secondary Review: [Signature] 8-8-06

- Cooler Breakdown: Date: \_\_\_\_\_ by: \_\_\_\_\_
1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
  2. Did all bottle labels and tags agree with custody papers? YES NO
  3. Were correct containers used for the tests indicated? YES NO
  4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A
- Explain any discrepancies: \_\_\_\_\_

		YES	NO	Sample I.D.	Reagent	Vol. Added	Final pH
pH	Reagent						
12	NaOH						
2	HNO <sub>3</sub>						
2	H <sub>2</sub> SO <sub>4</sub>						
Residual Chlorine (+/-)	for TCN & Phenol						
5-9**	P/PCBs (608 only)						

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH \_\_\_\_\_  
 \*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review: \_\_\_\_\_



8/7/2006

CHRONIC AQUATIC TOXICITY COMPOSITE 8C1

Split Sample  
C. TOX I +  
AW TOX Aug.  
2006

Month: AUG  
Week: 2  
Fiscal Wk: 32  
Weather: Chronic Composite Sample #1

	Gallons/Day	MI in Composite	Percent of Composite
001	84,010	4,508.41	30.06%
004	0	-	0.00%
007	0	-	0.00%
64T	31,530	1,692.06	11.28%
64G	151,180	8,113.10	54.09%
09A	0	-	0.00%
09B	12,791	686.43	4.58%
	279,511	15000	100.00%

The Chronic Toxicity Composite was made today by Mark Wbsnewsky @ 11<sup>00</sup> AM  
according to the table above, and given the sample ID# A7483C

Chain-of-Custody Form Number:	<u>086080706</u>
Analysis:	<u>Split Sample AUG</u>
Location:	<u>A. TOX / C. TOX 2006</u>
Time	<u>1100 AM</u>
Date:	<u>8-7-06</u>
Sample Label Serial Number	<u>A 7483C</u>

Mark Wbsnewsky  
Signed  
8-7-06  
Date

## *Attachment D*

---

# **NPDES Chronic Biomonitoring Report August 2006**

August 23, 2006

Mr. Jeffrey Nicholson  
GE Corporate Environmental Programs  
159 Plastics Avenue  
Pittsfield, MA 01201

Re: NPDES Chronic Biomonitoring Report for August 2006  
Submission #s: R2632759, R2632760 and R2632752

Dear Mr. Nicholson:

Enclosed is our report on the Chronic Whole Effluent Toxicity testing conducted in July 2006. The Outfall Composite samples were collected on 8/7/06 at 11:00 am, 8/9/06 at 11:00 am and 8/11/06 at 11:00 am. The Housatonic River samples were collected on 8/7/06 at 8:15 am, 8/9/06 at 8:15 am and 8/11/06 at 8:15 am. The Outfall Composite and Housatonic River samples were analyzed at Columbia Analytical Services for total cyanide, ammonia, total organic carbon, total phosphorus, chloride, total solids, total suspended solids, total residual chlorine, and total metals. Dissolved metals were analyzed for only on the Outfall Composite samples. Results are presented in Appendix 2. The Outfall Composite and Housatonic River samples were sent directly by General Electric to Aquatec Biological Services for the chronic aquatic toxicity testing including the analysis of alkalinity, hardness, specific conductance, and pH. Results are presented in Appendix 1.

Should you have any questions please contact me at (585)288-5380 x130.

Thank you for allowing us to provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES



Carlton Beechler  
Project Manager

enc.

CC: Jill Piskorz, Pat Fuse and Nicole Evans vial email.

# **NPDES BIOMONITORING REPORT**

**GENERAL ELECTRIC COMPANY**

**Pittsfield, MA**

**NPDES PERMIT MA 0003891**

**Reproductive Chronic Toxicity Monitoring**

**August 2006**

## **WHOLE EFFLUENT TOXICITY TEST REPORT CERTIFICATION**

I certify under penalty of law that this document and all ATTACHMENTS were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on

\_\_\_\_\_ (Date)

\_\_\_\_\_ (Authorized Signature)

Michael T. Carroll

General Electric Co. – Pittsfield, MA  
Permit MA0003891

**Prepared by: Carlton R. Beechler**  
**August 23, 2006**

## TABLE OF CONTENTS

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I. Summary	1
II. Review of Toxicity Analytical Results	2
III. Review of Wastewater Sampling Procedures	3
IV. Review of Individual Discharges	5

### Table I – Summary of Analytical Test Results

#### Appendices:

1. Chemical and Acute Toxicity Data from Aquatec Biological Sciences
2. Laboratory Reports from Columbia Analytical Services, Inc. and O'Brien & Gere, Inc.
3. Chain of Custody Forms



## I. Summary

On August 6-11, 2006 sampling of wastewater discharges from the General Electric Company facility in Pittsfield, MA was conducted in accordance with the chronic toxicity testing requirement of the GE NPDES Permit MA0003891. Three composite effluent samples were collected from GE outfalls 001, 005-64T, 005-64G and 09B over a 6-day period. Sampling dates were August 6-7, August 8-9 and August 10-11. If flow did not occur at an outfall during the 24 hour period, no sample was collected (see chain of custody records in Appendix 3 for details of the outfalls sampled during each period). Each set of samples were combined in a flow-proportioned manner to generate a single wastewater sample that was shipped via FedEx to Aquatec Biological Sciences in Williston, Vermont for chronic toxicity testing. Grab samples of Housatonic River water, to be used as dilution water in the toxicity test, were collected upstream of the GE discharges on August 7 – 9 – 11, 2006 and shipped to AquaTec along with the wastewater composite. AquaTec dechlorinated the composite sample prior to the acute toxicity test following the toxicity reduction procedures summarized in a letter dated November 11, 1993 to EPA Region I from JG Ruebesam of General Electric Company. The composite wastewater sample and the dilution water sample were tested for chemical constituents by O'Brien & Gere, Inc. and Columbia Analytical Services. The analytical results are summarized in Table I and the detailed laboratory test data are include as Appendices to this report. As a result of land transfer documents executed on April 27, 2005 and recorded in the Berkshire County Registry of Deeds on May 2, 2005, Outfalls 001 and 004 were transferred to the Pittsfield Economic Development Authority (PEDA). Outfalls 001 and 004 DMRs will no longer be submitted under the GE NPDES Permit No. MA0003891. However, GE's NPDES Permit requires that the metal and toxicity composites to be made by compositing samples from the following outfalls: 001, 004, 005, 007, and 009. These two composites will continue to include an aliquot of water from outfall 001 and outfall 004, and will be reported on GE's DMR until further actions by the Agencies.

The results from Aquatec Biological Sciences for the chronic toxicity test on the wastewater discharge sample indicated a No Observed Chronic Effect Level (NOCEL) of 100%. No Limit is established for NOCEL in the GE NPDES permit.

## II. Review of Toxicity Test Results

The wastewater discharge sample collected on August 6-7, August 8-9 and August 10-11, 2006 were tested for 7 day chronic toxicity using *Ceriodaphnia dubia* organisms. The sample did not require dechlorination with sodium thiosulfate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) prior to toxicity testing. Aquatec Biological Sciences reported the results of this toxicity testing as follows:

Effluent toxicity as NOCEL =	100%
Effluent toxicity as LC <sub>50</sub> =	>100%

No limit is established for NOCEL in the GE NPDES permit.

The following table summarizes the results of the control sample analyses performed by AquaTec during the chronic toxicity bioassay:

<u>Control Analysis</u>	<u>Result</u>	<u>Acceptable Limit</u>
Survival in 100% dilution water	100%	≥80%
Reproduction in 100% dilution water (average# of offspring/female/day)	32.8	≥15%
Reproduction in 100% dilution water (% of females having three broods)	100%	≥60%

The survival and reproduction rate of *Ceriodaphnia* in the upstream dilution water control samples was within acceptable limits, indicating that the results of the toxicity test are valid.

### III. Review of Wastewater Sampling Procedures

Three composite effluent samples of the individual NPDES wastewater discharges were collected over a 24-hour period. Each composite effluent sample was generated by combining samples from the individual NPDES discharges. Each group of individual samples collected over the same 24 hour period were composited in a flow-weighted manner to generate a single combined discharge sample for toxicity testing and chemical analysis.

The 24-hour composite samples from the individual discharges were collected as follows:

Each automatic sampler (at outfall 001, 64T, 64G, and 09B) was programmed to collect approximately 7 liters of wastewater into a 10-liter glass container in a time-proportioned manner over a 24-hour period. Outfalls 004, 007, and 09A have been plugged and no longer flow.

All sample containers were packed in ice or refrigerated to keep the wastewater samples cold during the 24-hour collection period.

Flow meter readings were taken at the beginning and end of the 24-hour collection period to determine the total 24-hour flow for each wastewater discharge.

At the end of the 24-hour collection period, the discharge samples were taken to Building 64G where O'Brien & Gere personnel composited these samples, in a flow weighted manner, to generate a single combined sample for the chronic toxicity test and the chemical analyses, as follows:

The proportions of each individual discharge sample needed to produce a single combined sample were calculated from the flow measurements. The calculated sample volumes were then transferred from their original collection containers to a 2.5 or 5 gallon mixing container. The combined discharge sample was then split into various containers for toxicity testing and chemical analyses. These containers were shipped by vendor courier to AquaTec for toxicity testing and by FedEx (overnight) to Columbia Analytical Services for chemical analyses. All samples were chilled with ice packs during shipment.

A grab sample of Housatonic River water was collected on the second day of each 24 hour period at the Lyman Road Bridge in Hinsdale, MA, upstream of the GE site. This sample was split for chemical analysis and toxicity testing in a similar manner as the combined effluent sample (see above).

Details of the times and dates of sample collection as well as the names of the individuals collecting and transporting the samples are provided on the chain of custody forms in Appendix 3 of this report.

#### IV. Review of Individual NPDES Discharges

The following is a brief description of each of the seven outfalls that are monitored for acute and chronic toxicity in accordance with NPDES Permit MA0003891 issued to the General Electric Company, Pittsfield, MA.

1. Outfall 001 is permitted to discharge storm water runoff from the oil/water separator in Building 31W to Silver Lake.

2. Outfall 004 is permitted to discharge storm water runoff to Silver Lake. (**Outfall plugged**)

3. Outfall 005 is permitted to discharge contact cooling water, non-contact cooling water, treated process water and storm water runoff from the Wastewater Treatment Plant in Building 64T, and treated groundwater from the Groundwater Treatment Plant in Building 64G to the Housatonic River. Monitoring samples are collected separately from the effluents of 64G and 64T. Both samples are included in the flow composite sample used for toxicity testing.

4. Outfall 007 is permitted to discharge stormwater runoff to the Housatonic River. (**Outfall plugged**)

5. Outfall 09A is permitted to discharge non-contact cooling water and stormwater runoff to Unkamet Brook. (**Outfall plugged**)

6. Outfall 09B is permitted to discharge non-contact cooling water, treated process water and stormwater runoff from the oil/water separator in Building 119W to Unkamet Brook.

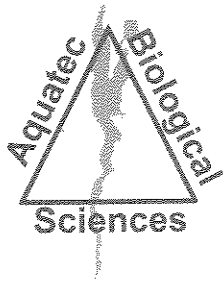
Table I – Summary of Analytical results for NPDES Outfall Composite Sample and Housatonic River Dilution Water August 6-11, 2006

Aquatic Toxicity Results:		No Observed Effect Level (NOCEL) =						100%
								LC50 =
								>100%
Chemical Analyses: (all results are mg/L unless otherwise indicated)								
Parameter Tested	Laboratory	Aug 6-7	Aug 7	Aug 8-9	Aug 9	Aug 10-11	Aug 11	
		Effluent Composite	Housatonic River	Effluent Composite	Housatonic River	Effluent Composite	Housatonic River	
Ammonia	CAS	0.567	ND (0.0500)	0.531	0.179	0.523	ND (0.0500)	
Chloride	CAS	152	18.2	191	13.2	196	18.5	
Total Alkalinity	CAS	277	105	357	73.3	366	103	
Total Organic Carbon	CAS	6.99	6.66	6.57	6.03	6.40	5.01	
Total Phosphorus	CAS	0.0796	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	ND (0.0500)	
Total Solids	CAS	554	159	683	122	694	147	
Total Suspended Solids	CAS	2.60	2.70	ND (1.00)	2.20	ND (1.00)	1.00	
Hardness	Aquatec	308	106	172	84	356	110	
Spec. Conductance (umhos)	Aquatec	1027	276	1268	201	1303	274	
pH (SU)	Aquatec	7.7	7.6	7.7	7.4	8.1	7.8	
TRC (start of toxicity test)	Aquatec	ND	ND	ND	ND	ND	ND	
Cyanide	CAS	0.0279	ND (0.0100)	0.0444	ND (0.0100)	0.0197	ND (0.0100)	
Aluminum, total	CAS	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	ND (0.100)	
Aluminum, dissolved	CAS	ND (0.100)	NA	ND (0.100)	NA	ND (0.100)	NA	
Cadmium, total	CAS	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	
Cadmium, dissolved	CAS	ND (0.00500)	NA	ND (0.00500)	NA	ND (0.00500)	NA	
Chromium, total	CAS	ND (0.0100)	ND (0.0100)	ND (0.0100)	ND (0.0100)	ND (0.0100)	ND (0.0100)	
Chromium, dissolved	CAS	ND (0.0100)	NA	ND (0.0100)	NA	ND (0.0100)	NA	
Copper, total	CAS	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	
Copper, dissolved	CAS	ND (0.0200)	NA	ND (0.0200)	NA	ND (0.0200)	NA	
Lead, total	CAS	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	ND (0.00500)	
Lead, dissolved	CAS	ND (0.00500)	NA	ND (0.00500)	NA	ND (0.00500)	NA	
Nickel, total	CAS	ND (0.0400)	ND (0.0400)	ND (0.0400)	ND (0.0400)	ND (0.0400)	ND (0.0400)	
Nickel, dissolved	CAS	ND (0.0400)	NA	ND (0.0400)	NA	ND (0.0400)	NA	
Silver, total	CAS	ND (0.0100)	ND (0.0100)	ND (0.0100)	ND (0.0100)	ND (0.0100)	ND (0.0100)	
Silver, dissolved	CAS	ND (0.0100)	NA	ND (0.0100)	NA	ND (0.0100)	NA	
Zinc, total	CAS	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	ND (0.0200)	
Zinc, dissolved	CAS	0.0252	NA	0.0499	NA	ND (0.0200)	NA	
pH (SU)	OB&G	7.77	7.92	7.82	7.17	7.85	7.79	
Hardness	Aquatec	308	106	172	84	356	110	
All results are mg/L unless otherwise indicated.								
NA – Not analyzed								
ND – Not detected (Number in parentheses is detection limit.)								

## **APPENDIX 1**

Chemical and Acute Toxicity Data

Aquatec Biological Sciences



# Aquatec Biological Sciences



Ecology



Environmental  
Toxicology



Natural Resource  
Assessments



Microbiology

August 22, 2006

Mr. Carl Beechler  
Columbia Analytical Services,  
1 Mustard Street – Suite 250  
Rochester, NY 14609

Dear Mr. Beechler:

Enclosed please find one bound and one unbound copies of our report of the results for chronic whole effluent toxicity testing of samples received from GE Pittsfield, Massachusetts on August 8 - 14, 2006.

According to the Chain-of-Custody documentation, samples for Whole Effluent Toxicity (WET) Testing were collected on August 7, 9, and 11, 2006. The samples were transported to Aquatec Biological Sciences, Inc. by courier and delivered on the same day. The initial effluent sample was logged in for the short-term chronic toxicity test with *Ceriodaphnia dubia* (EPA Method 1002.0). Subsequent effluent samples were used for toxicity test renewals. The receiving water samples were logged in for dilution water. A subsample of each sample was checked for residual chlorine (not detected) and for alkalinity and hardness measurements at Aquatec Biological Sciences, Inc. The toxicity test was started on August 8, 2006, within the specified holding time.

At the conclusion of the toxicity test on August 14, 2006, a final count of surviving organisms and offspring (neonates) was completed. The average survival was 90 - 100 percent in all test concentrations. Acute toxicity or chronic to *Ceriodaphnia dubia* was not detected, with the 48-hour LC50 reported as >100% effluent and the Chronic No-Observed-Effect Concentration (C-NOEC) reported as 100% (Section 4.1 of the report).

If you have any questions regarding the report, please call Dr. Philip C. Downey or me.

Sincerely,

  
John Williams  
Manager, Environmental Toxicology

This report consists of the following numbered pages:

1 - 61



**Chronic Whole Effluent Toxicity Testing  
Of Wastewaters Discharged from  
The General Electric Plant  
Pittsfield, Massachusetts**

Samples Collected in August 2006

Submitted to:  
**General Electric  
Area Environmental & Facility Programs  
100 Woodlawn Avenue  
Pittsfield, Massachusetts 01201**

SDG number: 9753

Effluent ID: Outfall Composite A7483C Aquatec sample number: 32567  
Effluent ID: Outfall Composite A7485C Aquatec sample number: 32613  
Effluent ID: Outfall Composite A7487C Aquatec sample number: 32771

Receiving water ID: Housatonic River A7482R Aquatec sample number: 32568  
Receiving water ID: Housatonic River A7484R Aquatec sample number: 32614  
Receiving water ID: Housatonic River A7486R Aquatec sample number: 32772  
Study Director: John Williams

August 22, 2006

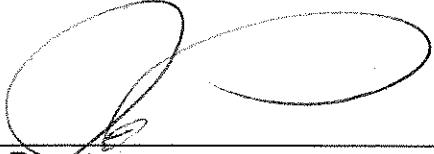
Submitted by:  
**Aquatec Biological Sciences, Inc.  
273 Commerce Street  
Williston, Vermont 05454**  
**Phone: (802) 860-1638 Fax: (802) 860-1638**

Accreditation: NH Environmental Laboratory Accreditation Program  
NELAP / NELAC accredited for the requested analysis.

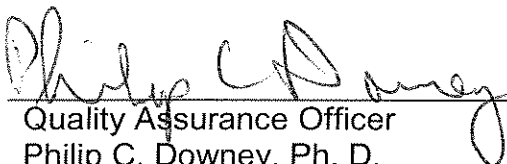
### Signatures and Approval

**Submitted by:**

Aquatec Biological Sciences, Inc.  
273 Commerce Street  
Williston, Vermont 05454  
Phone: (802) 860-1638  
Fax: (802) 860-1638

  
\_\_\_\_\_  
Study Director  
John Williams

8/22/06  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Quality Assurance Officer  
Philip C. Downey, Ph. D.

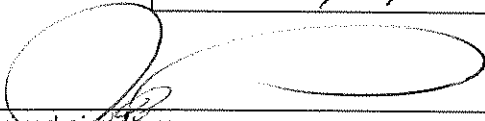
8/22/06  
\_\_\_\_\_  
Date

## Whole Effluent Toxicity Test Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on:

Date: 8/22/06

  
Authorized signature

John Williams

Name

Manager, Environmental Toxicology

Title

Aquatec Biological Sciences, Inc.

Laboratory

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**Summary  
of  
Chronic Survival and Reproduction Toxicity Test with  
*Ceriodaphnia dubia***

---

Sponsor: General Electric

Protocol title: US EPA-821-R-02-013. *Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, 4<sup>th</sup> Ed., October 2002. Method 1002.0

Aquatec SDG: 9753

Test material: Composite effluent from the General Electric Company located in Pittsfield, Massachusetts

GE sample ID: Outfall Composite A7483C  
Outfall Composite A7485C  
Outfall Composite A7487C

Dilution water: Water from the Housatonic River (grab sample)

GE sample ID: Housatonic River A7482R  
Housatonic River A7484R  
Housatonic River A7486R

Dates collected: August 7, 9, and 11, 2006

Date received: August 7, 9, and 11, 2006

Test dates: August 8-14, 2006

Test concentrations: 100%, 75%, 50%, 25%, 12.5%, 6.25% effluent.  
Dilution water control (Housatonic River)  
Laboratory control 1 (culture water)  
Laboratory control 2 (culture water with sodium thiosulfate)

---

**Acute Toxicity Values**

<b>Species</b>	<b>Exposure Period</b>	<b>48-hour LC50 (% effluent)</b>	<b>A-NOAC (% effluent)</b>
<i>Ceriodaphnia dubia</i>	48 hours	>100%	>100%

**Chronic Toxicity Values**

<b>Species</b>	<b>Endpoint</b>	<b>Exposure Period</b>	<b>C-NOEC (% effluent)</b>	<b>C-LOEC (% effluent)</b>
<i>Ceriodaphnia dubia</i>	Survival	6 – 7 days	>100%	>100%
<i>Ceriodaphnia dubia</i>	Reproduction	6 – 7 days	>100%	>100%

## 1.0 Introduction

### 1.1 Background

In 1972, amendments were made to the Clean Water Act (CWA) prohibiting the discharge of any pollutant from a point source to waters of the United States, unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Since the passing of the 1972 amendments to the CWA, significant progress has been made in cleaning up industrial wastewater and municipal sewage point source discharges. EPA defines point sources as discrete discharges via pipes or man-made ditches.

In 1984, the U.S. Environmental Protection Agency (EPA) released a national policy statement and a supporting document that recommended, where appropriate, effluent permit limits should be based on effluent toxicity as measured in aquatic toxicity tests. Generally, permits require that no toxic discharge occur in toxic amounts. The routine use of dilution-series toxicity tests and/or biologically-based criteria (i.e., invertebrate and vertebrate community studies) have become increasingly utilized to calculate or estimate the potential toxicity of a discharge.

EPA has the authority to delegate primary responsibility for the implementation, permitting, and enforcement of NPDES regulations to appropriate State regulatory agencies. Even when EPA delegates this authority to the states, EPA still maintains oversight responsibility.

### 1.2 Objective of the General Electric Study

The objective of this study was to measure the chronic toxicity of the composite wastewater discharged by the General Electric facility located in Pittsfield, Massachusetts to the Housatonic River. The water flea, *Ceriodaphnia dubia*, is exposed to effluent and dilutions of effluent under static conditions with daily renewal of test solutions. *Ceriodaphnia dubia* is routinely used by regulatory agencies and by contract laboratories for toxicity testing and EPA has published guidance documents for the performance of this test (U.S. EPA, 2002).

A toxicity test was conducted from August 8-14, 2006 at Aquatec Biological Sciences, Inc. (Aquatec) located in Williston Vermont. Aquatec Biological Sciences, Inc. holds NELAC accreditation for the requested whole effluent toxicity test. All original raw data and the final report produced for this study are stored in Aquatec's archives in Williston, Vermont.

## 2.0 Materials and Methods

### 2.1 Protocol

Procedures used in this chronic toxicity test followed those described in the Aquatec Standard Operating Procedure (SOP) TOX2-002, Cladoceran, *Ceriodaphnia dubia* Survival and Reproduction Toxicity Test R4, May 4, 2006. This SOP generally follows the standard methodology presented in U.S. EPA. 2002 (EPA-821-R-02-013). *Methods for Measuring the Chronic Toxicity of*



*Effluents and Receiving Waters to Freshwater Organisms*, 4<sup>th</sup> Ed., October 2002, Method 1002.0 (as summarized in Appendix 2 of this report). A copy of the SOP is located in Appendix 6 (Controlled document, please do not copy or distribute.)

Additional SOPs used in this study are outlined below:

Title	SOP Number	Revision Date
Sample Acceptance	TOX1-017	Rev. 4, February, 2004
Hardness – total titrimetric method	TOX1-011	Rev. 3, May 2003
Alkalinity – total titrimetric method	TOX1-010	Rev. 6, April 2004
Thermo-Orion 145 A+ Conductivity Meter	TOX1-016	Rev. 1, April 2004
Dissolved oxygen	TOX1-006	Rev. 7, April 2004
pH measurement	TOX1-007	Rev. 2, April 2004
Salinity: refraction method	TOX1-008	Rev. 3, January, 2003

## 2.2 Effluent and Receiving Water Samples

Effluent samples were collected by GE personnel from August 6-7, 2006 (initial sample); August 8-9, 2006 (first renewal sample), and August 10-11, 2006 (second renewal sample). Receiving water samples were grab samples collected from the Housatonic River on August 7, 9, and 11, 2006. Samples were delivered to Aquatec on the same day as they were collected. Upon receipt at Aquatec on the temperature of the temperature blank contained within the cooler was within the range of 0.0°C to 6.0°C. The effluent and receiving water were prepared for testing and characterized (Table 1). The receiving water was the dilution water for preparing effluent concentrations and was also the reference control for statistical comparisons.

## 2.3 Control water

Laboratory control water for the toxicity test was a 1:1 mixture of laboratory reconstituted moderately hard water and 60-micron filtered river water collected from the Lamoille River, Vermont. This water was characterized for the following parameters: pH (7.6); dissolved oxygen (8.2 mg/L); conductivity (240 uS/cm). An additional dechlorination control (laboratory water with 0.2 N sodium thiosulfate added) was included in the test array, even though chlorine was not detected in the effluent sample.

## 2.4 Test Organism

Daphnids (*Ceriodaphnia dubia*), less than 24-hours old and collected within and eight-hour period were obtained from Aquatec laboratory cultures. The culture system consisted of brood boards with 1-oz cups containing approximately 20 mL of culture medium and one daphnid. The culture water was laboratory reconstituted moderately hard water mixed in a 1:1 ratio with filtered Lamoille River, VT water. Prior to use, the culture water was characterized:

Parameter	Result
Total hardness (mg/L)	Within range of 50-110 mg/L
Alkalinity (mg/L as CaCO <sub>3</sub> )	Within range of 60-70 mg/L
pH	Nominal 7.7 – 8.0

The culture area was maintained at a nominal temperature of 25°C (range 24 – 26 °C) with a regulated photoperiod of 16 hours light and 8 hours of darkness.

Daphnid cultures were fed daily a combination of green algae (*Selenastrum capricornutum*) and YCT obtained from Aquatic BioSystems of Fort Collins, Colorado. Daphnids were transferred to new culture medium daily.

Beginning approximately 24 hours before toxicity test initiation neonates were removed from the culture cups. Offspring produced within eight hours were used for toxicity testing when the neonates were 24 hours old or less.

## 2.5 Test Procedures

Prior to initiating the toxicity test, a sub-sample of effluent and receiving water was decanted for subsequent alkalinity and hardness determination. A sub-sample was also check for presence of chlorine to determine whether dechlorination of effluent is required. Chlorine was not detected, therefore dechlorination of the effluent was not required. The sample was then aerated and warmed to test temperature.

The toxicity test was conducted at effluent concentrations of 100%, 75%, 50%, 25%, 12.5%, and 6.25% effluent. Test concentrations were prepared by diluting the appropriate volume of effluent with dilution water to a total volume of 300 mL. Test solutions were then decanted to ten replicate 30-mL cups per concentration, each containing approximately 20 mL of test solution. Three sets of control replicates were also included in the test array, set up as the effluent replicates. The controls included: Housatonic River water (dilution control), a laboratory control (a mix of moderately hard water and Lamoille River, VT water), and a laboratory control with sodium thiosulfate added (dechlorination control). The dechlorination control was included in the test array even though residual chlorine was not detected in the effluent.

Prior to testing, daphnids less than 24-hours old were collected from the cultures, pooled in Carolina bowl, and fed. The test was initiated when the daphnid neonates were transferred to the replicate test cups, one daphnid per cup. The toxicity test cups were incubated to maintain temperature in the range of 24°C to 26 °C. The lighting cycle was 16 hours light and eight hours dark and a luminance of approximately 80 ft-c.

The criteria for ending the toxicity test was based upon the controls reaching an average of 15 neonates or more per female and at least 60 percent of surviving females having produced three broods during the test.

## **2.6 Test Monitoring**

The number of surviving daphnids and the number of young produced was observed at approximately 24-hour intervals during the test, with the final count of surviving daphnids and young at the end of the test. Temperature was measured daily in one replicate of each test treatment. The parameters of pH, dissolved oxygen, and conductivity were measured daily on a composite of the test solutions before and after renewal.

Total hardness was measured by the EDTA titrimetric method and total alkalinity was measured by potentiometric titration to an endpoint of 4.5 on each new sample. The check for residual chlorine was performed with an acidified sample to which potassium iodide and starch indicator added. If chlorine was detected, the color was titrated away with 0.02 N sodium thiosulfate to determine the equivalent volume of 0.2 N sodium thiosulfate to add to effluent (if needed).

Dissolved oxygen was measured with a YSI Model 58 dissolved oxygen meter. A Beckman Phi 40 was used to measure pH. A Thermo-Orion Model 145 conductivity meter was used to measure conductivity.

## **2.7 Reference Toxicant Test**

A acute / chronic standard reference toxicant (SRT) test was conducted monthly. The SRT test was conducted as a quality control procedure to establish the health and sensitivity of the test organisms. The SRT included four concentrations of reagent grade sodium chloride (NaCl) with nominal concentrations of 0.25, 0.5, 1.0, 2.0, and 3.0 g NaCl/L. Ten test replicates, each containing one daphnid were test at each concentration and the laboratory control.

# **3.0 Statistics**

## **3.1 Statistical protocol**

The concentration-response relationships observed were characterized by the median lethal concentration (LC50, based on survival data at 48-hours of the test), which was the calculated concentration lethal to 50 percent of the test organisms. If no concentrations resulted in 50% mortality, the LC50 was reported as greater than the highest concentration effluent (in this case >100% effluent), by direct observation. If greater than 50 percent mortality was observed in any effluent treatment, then a computer program (TOXIS2) was used to calculate the LC50 value, following the U.S. EPA statistical flowchart (Appendix 3).

The Acute-No-Observable-Effect Concentration (A-NOEC) was determined statistically using multiple comparison tests (TOXIS2), with the receiving water control as the reference.

The Chronic-No-Observable-Effect Concentration (C-NOEC) was determined based on the end-of-test survival and reproduction data using multiple comparison tests (TOXIS2), with the receiving water control as the statistical reference.

## 4.0 Results

### 4.1 Effluent Toxicity Test

Results of effluent and receiving water characterizations performed at Aquatec as part of the toxicity test are presented in Table 1. Water quality parameters measured during the toxicity test are presented in Table 2. Measured temperatures during the test were within the range of 23.9°C to 26°C. The percent survival data and number of offspring produced during the exposure for the toxicity test are presented in Table 3.

By day six, at least 60 percent of the reference control (receiving water) organisms had produced at least three broods with a minimum of 15 young per surviving female.

Acute toxicity was not demonstrated during this evaluation. The 48-hour LC50 value was >100% effluent. The A-NOEC was 100% effluent. Chronic toxicity was not demonstrated during this evaluation. The C-NOEC value was 100% effluent. And the C-LOEC was >100% effluent.

### 4.2 Reference Toxicant Test

The most recent standard reference toxicant (SRT) test, conducted in August 2006, had a resulting 48-hour LC50 2.395 g NaCl/L and a chronic IC25 of 0.529 g NaCl/L. These values were within the Control Chart limits generated for SRT tests with *Ceriodaphnia dubia* in our laboratory.

## 5.0 Qualifiers

### 5.1 Qualifiers and Special Conditions

Qualifiers or special conditions were not applicable to the reported toxicity test.

## References

American Public Health Association, American Water Works Association, and Water Pollution Control Federation (APHA). 1989. Standard Methods for the Examination of Water and Wastewater. 17<sup>th</sup> Edition

U.S. Environmental Protection Agency, 2002. 4<sup>th</sup> Edition. *Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*. EPA-821-R-02-013.

**Table 1. Results of the characterization of the General Electric Pittsfield Plant effluent and receiving water samples.**

<b>Parameter</b>	<b>OUTFALL COMPOSITE A7483C</b>	<b>OUTFALL COMPOSITE A7485C</b>	<b>OUTFALL COMPOSITE A7487C</b>
Temperature	24.0	25.3	25.1
pH	7.7	7.7	8.1
Alkalinity (as CaCO <sub>3</sub> ), mg/L	268	340	360
Hardness (as CaCO <sub>3</sub> ), mg/L	308	172	356
Dissolved oxygen, mg/L	8.5	8.9	8.4
Specific conductivity, uS/cm	1027	1268	1303
Total residual chlorine (mg/L)	ND	ND	ND
<b>Parameter</b>	<b>Housatonic River A7482R</b>	<b>Housatonic River A7484R</b>	<b>Housatonic River A7486R</b>
Temperature	24.2	26.0	25.1
pH	7.6	7.4	7.8
Alkalinity (as CaCO <sub>3</sub> ), mg/L	92	68	100
Hardness (as CaCO <sub>3</sub> ), mg/L	106	84	110
Dissolved oxygen, mg/L	8.7	8.9	8.5
Specific conductivity, uS/cm	276	201	274
Total residual chlorine (mg/L)	ND	ND	ND

Note: Characterizations reflect conditions of sample after preparation for the toxicity test. ND = not detected

**Table 2. Water quality measurements (ranges) recorded during the chronic toxicity test with *Ceriodaphnia dubia* exposed to General Electric Pittsfield Plant effluent, August 8 - 14, 2006.**

Test Concentration (% effluent)	pH	Dissolved Oxygen (mg/L)	Temperature (°C)	Conductivity (umhos/cm)
Dechl. Control	7.1 - 7.8	7.8 - 8.5	24.4 - 25.5	217-324
Lab Control	7.2 - 7.6	7.6 - 8.5	24.2 - 25.1	197 - 251
Reference Control	7.4 - 7.8	7.5 - 9.1	24.2 - 26.0	200 - 282
6.25%	7.5 - 8.0	7.5 - 9.2	24.2 - 26.0	276 - 349
12.5%	7.5 - 8.0	7.2 - 9.2	24.1 - 26.0	346 - 419
25%	7.6 - 8.1	7.4 - 9.2	24.1 - 26.0	466 - 550
50%	7.6 - 8.3	7.4 - 9.1	24.0 - 26.0	645 - 807
75%	7.7 - 8.3	7.4 - 8.9	23.9 - 25.7	821 - 1057
100%	7.7 - 8.2	7.5 - 8.9	24.0 - 25.9	984 - 1306

Dechl. Control = laboratory water with sodium thiosulfate added (dechlorination control).

Lab Control = a mix of natural river water and moderately hard water.

Dilution Control = receiving water (Housatonic River).

**Table 3 a. Summary of percent survival and reproduction data recorded during the chronic toxicity test with *Ceriodaphnia dubia* exposed to General Electric Pittsfield Plant effluent, August 8 - 14, 2006.**

Test Concentration (% effluent)	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Dechl. Control	100	100	100	100	100	90	-
Lab Control	100	100	100	100	100	100	-
Reference Control	100	100	100	100	90	90	-
6.25%	100	100	100	100	100	100	-
12.5%	100	100	100	100	100	100	-
25%	100	100	100	100	100	100	-
50%	100	100	100	100	100	90	-
75%	100	100	100	100	100	100	-
100%	100	100	100	100	100	100	-

**Table 3 b. Summary of reproduction data (number of offspring produced) recorded during the chronic toxicity test with *Ceriodaphnia dubia* exposed to General Electric Pittsfield Plant effluent, August 8 - 14, 2006.**

Test Concentration (% effluent)	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Mean
Dechl. Control	0	0	50	89	0	144	-	28.3
Lab Control	0	0	43	73	4	138	-	25.8
Reference Control	0	0	43	84	0	151	-	27.8
6.25%	0	0	47	81	0	173	-	30.1
12.5%	0	0	46	86	0	168	-	30.0
25%	0	0	47	88	0	183	-	31.8
50%	0	0	42	82	17	142	-	28.3
75%	0	0	51	100	19	155	-	32.5
100%	0	0	54	109	0	165	-	32.8



**Dechl. Control = laboratory water with sodium thiosulfate added  
(dechlorination control).**

**Lab Control = a mix of natural river water and moderately hard water.**

**Dilution Control = receiving water (Housatonic River).**

## **Appendix 1 Chain-of-Custody Documentation**



# Aquatec Biological Sciences

## Chain-of-Custody Record

273 Commerce Street  
 Williston, VT 05495  
 TEL: (802) 860-1638  
 FAX: (802) 668-3189

COMPANY INFORMATION		COMPANY'S PROJECT INFORMATION				SHIPPING INFORMATION		VOLUME/CONTAINER TYPE/ PRESERVATIVE					
Name: General Electric Company Address: O'Brien & Gere 1000 East Street, Gate 64 City/State/Zip: Pittsfield, MA 01201 Telephone: (413) 494-6709 Facsimile: Contact Name: Mark Wasniewsky		Project Name: GE PITTSFIELD <b>Outfall Composite - RENEWAL SAMPLE</b> Project Number: 06004 Sampler Name(s): <u>MARK WASNIEWSKY</u> NPDES Permit #: MA0003891 Ship these samples on <b>Wednesday</b> . Quote #: 10/05 Client Code: GEPITTS				Carrier: Airbill Number: <u>8-9-06</u> Date Shipped: Hand Delivered: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		4°C Plastic 1 gal 4°C Plastic 1/2 gal 4°C H <sub>2</sub> SO <sub>4</sub> 40 ml 4°C H <sub>2</sub> SO <sub>4</sub> 1 L 4°C HNO <sub>3</sub> Plastic Amber Glass 250 ml 0.5 L					
SAMPLE IDENTIFICATION	COLLECTION		GRAB	COMPOSITE	MATRIX	ANALYSIS	NUMBER OF CONTAINERS						
	DATE	TIME											
Outfall Composite <b>A7485C</b>	8-9-06	11:00 AM	✓		Effluent	Ceriodaphnia dubia chronic survival and reproduction (EPA Method 1002.0) - Renewal 1	1						
Outfall Composite <b>A7485C</b>	↓	11:00 AM	✓		Effluent	Total Residual Chlorine				1			
Housatonic River <b>A7484R</b>	↓	8:15 AM	✓		Receiving	Dilution Water	2						
Housatonic River <b>A7484R</b>	↓	8:15 AM	✓		Receiving	Total Residual Chlorine				1			
Relinquished by: (signature) <i>Mark Wasniewsky</i>	DATE	TIME	Received by: (signature) <i>John Dunning</i>		NOTES TO SAMPLER(S): (1) Complete the labels (Date, time, initials) and cover the labels with clear tape. Tape the caps of the sample bottles to ensure that they do not become dislodged during shipment. Nest the samples in sufficient ice to maintain 0°C - 6°C. Results for samples received at temperatures exceeding 6°C will be qualified in the report.  Notes to Lab: Ambient cooler temperature: <u>1.4</u> °C. Dechlorinate the effluent sample if chlorine is detected.								
Relinquished by: (signature)	8-9-06	1330	Received by: (signature) <i>John Dunning (Lab)</i>										
Relinquished by: (signature)	8/9/06	1755	Received by: (signature)										
Relinquished by: (signature)	DATE	TIME	Received by: (signature)										



## **Appendix 2**

### **Summary of Test Conditions**

**Test Description: Daphnid, *Ceriodaphnia dubia* acute / chronic survival and reproduction**

ASSOCIATED PROTOCOL: EPA 1994. *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.* (EPA/600/4-91/002) Method 1002.0

1. Test type:	Static, daily renewal
2. Test temperature:	25 ± 1°C
3. Light quality:	Ambient laboratory illumination
4. Photoperiod:	16 hr. light, 8 hr. dark
5. Test chamber size:	30 ml
6. Test solution volume:	15-20 ml / replicate
7. Renewal of test concentrations:	Daily
8. Age of test organisms:	Less than 24 h, released within an 8 hr. period
9. No. organisms / test chamber:	1
10. No. of replicate chambers / concentration:	10
11. No. of organisms / concentration:	10
12. Feeding regime:	0.1 ml each of YTC and algal suspension daily
13. Cleaning:	Transfer to new test solution and test chamber daily
14. Aeration:	None
15. Dilution water:	Receiving water
16. Test concentrations:	6.25, 12.5, 25, 50, 75, 100% effluent
17. Laboratory control:	1:1 Lamoille R. / MHW as additional control. Sodium thiosulfate in MHW as additional control
18. Test duration:	Until 60% of control females have three broods
19. Monitoring:	Daily temperature, dissolved oxygen, pH, and conductivity. Hardness, alkalinity on each new sample. Biological monitoring daily
19. End points:	Survival (Days 2 and end of test) and reproduction (end of test)
20. Reference toxicant test:	Sodium chloride LC50 / IC25
21. Test acceptability (control performance):	80% or greater survival and an average of 15 or more young/female. At least 60% of surviving females must have produced third brood
22. Data interpretation:	Acute: 48-h LC50 (point estimate); A-NOEC Chronic: C-NOEC by hypothesis test statistics compared to the Lab Control using TOXIS2

**Appendix 3**  
**U.S. EPA Region 1 Toxicity Test Summary and**  
**Statistical Flow Chart**





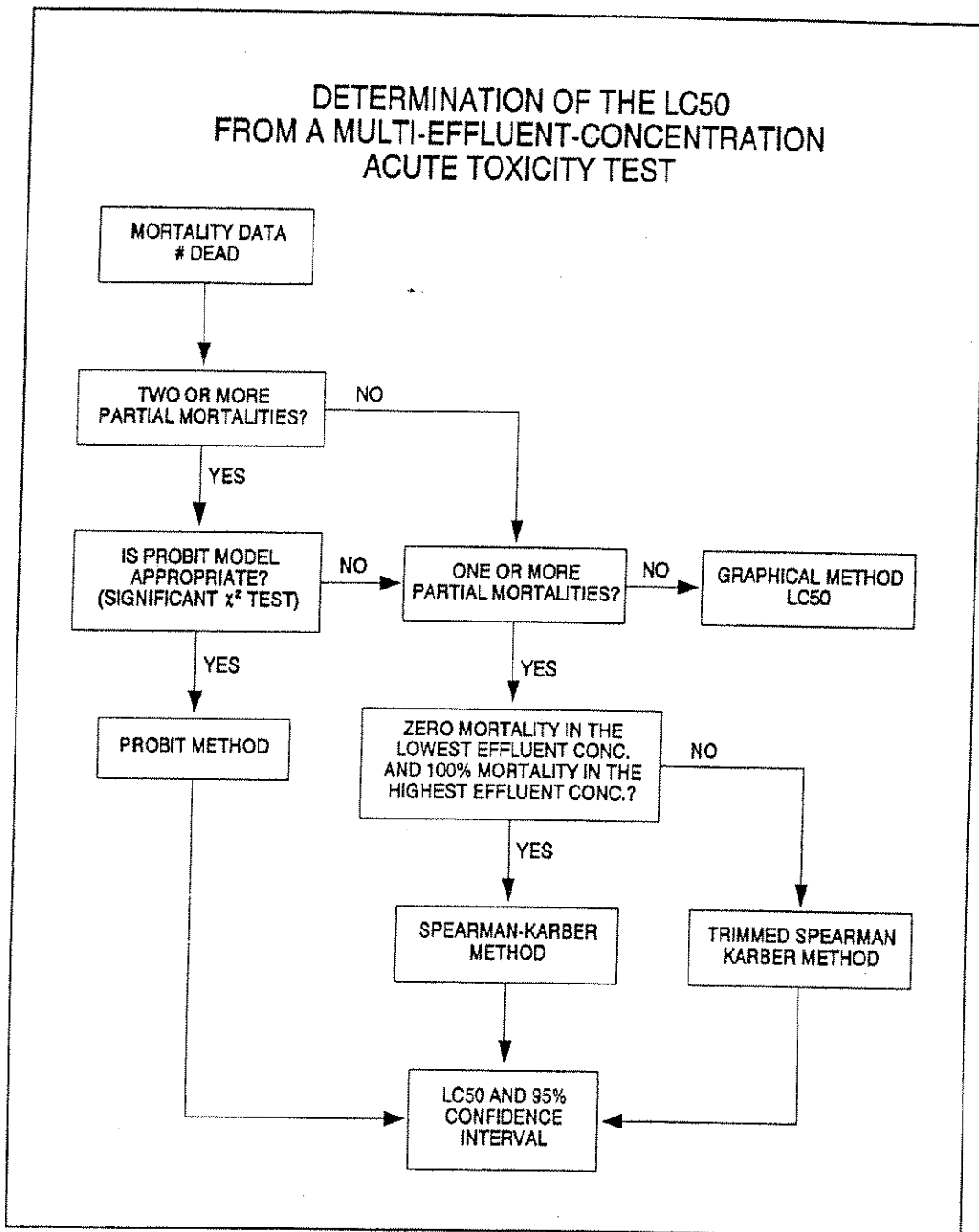


Figure 6. Flowchart for determination of the LC50 for multi-effluent-concentration acute toxicity tests.

## DETERMINATION OF THE NOAEC FROM A MULTI-EFFLUENT-CONCENTRATION ACUTE TOXICITY TEST

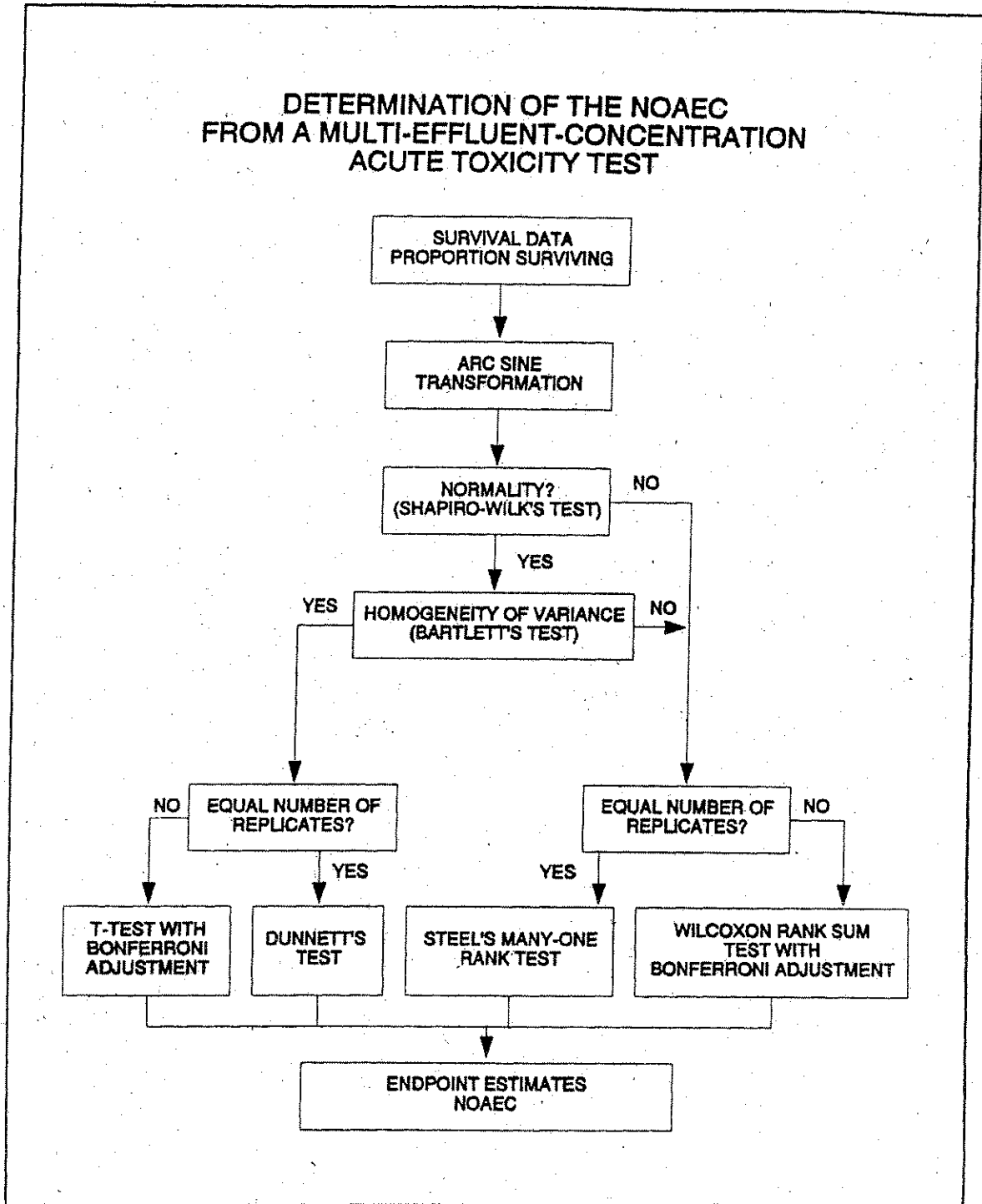


Figure 13. Flowchart for analysis of multi-effluent-concentration test data.

## STATISTICAL ANALYSIS OF CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST

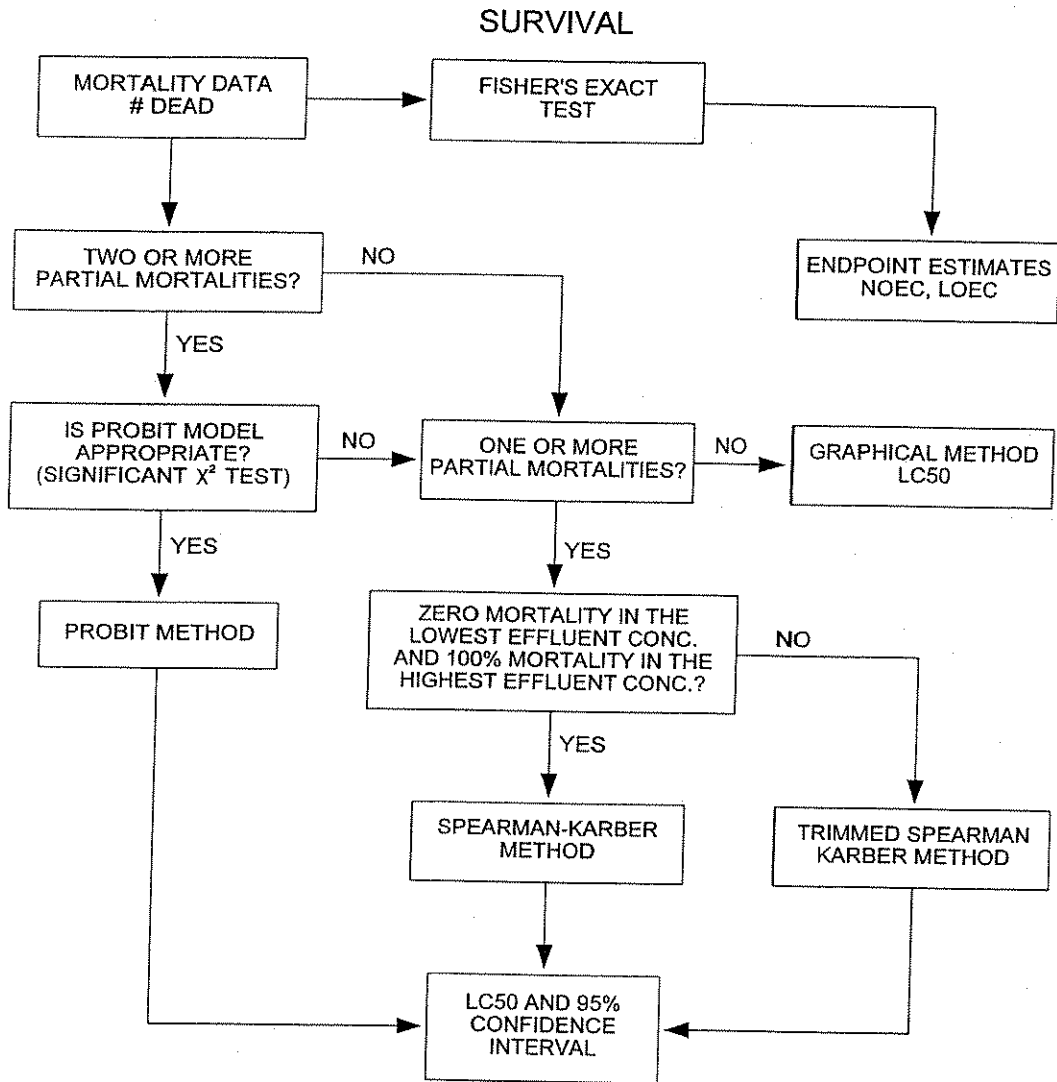


Figure 4. Flowchart for statistical analysis of the daphnid, *Ceriodaphnia dubia*, survival data.

STATISTICAL ANALYSIS OF CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST

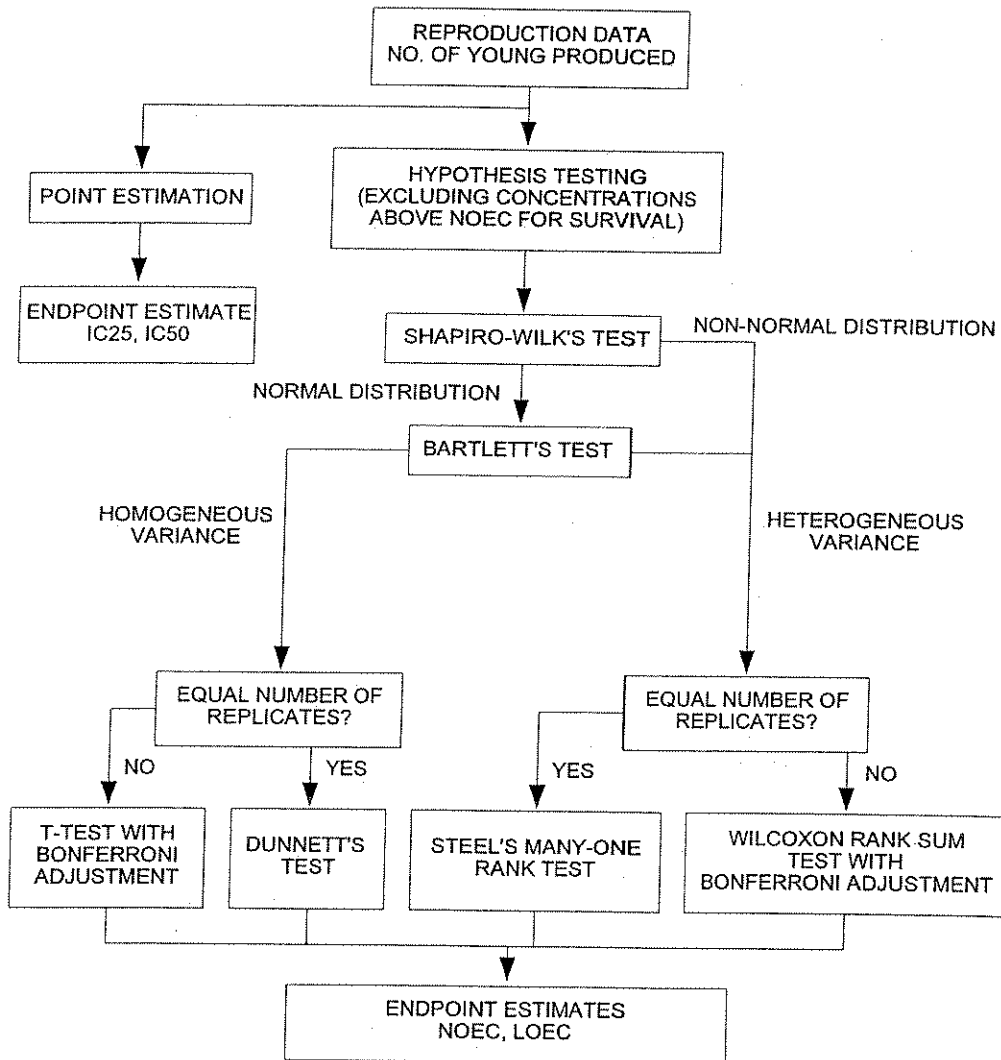


Figure 6.

Flowchart for the statistical analysis of the daphnid, *Ceriodaphnia dubia*, reproduction data.

**Appendix 4**  
**Bench Data, *Ceriodaphnia dubia* Chronic Toxicity Test**

=====  
 | Aquatec Biological Sciences, Inc. |  
 =====

Test Date: 8/08/06  
 Sample Date: 8/07/06  
 Species: Ceriodaphnia dubia  
 Test Type: Chronic

Test Number: 48823  
 Test Material: Effluent - POTW  
 Source: MA0003891  
 General Electric Company  
 Pittsfield, MA

=====  
 SUMMARY  
 =====

End Point	Day	Transformation	Conc	#Reps	Mean	StDev	% Surv
Proportion Alive	2	No transformation	0.000 B	10	1.00	0.000	
			X 0.000 D	10	1.00	0.000	
			X 6.250 D	10	1.00	0.000	
			X 12.500 D	10	1.00	0.000	
			X 25.000 D	10	1.00	0.000	
			X 50.000 D	10	1.00	0.000	
			X 75.000 D	10	1.00	0.000	
			X 100.000 D	10	1.00	0.000	
			Proportion Alive	7	No transformation	0.000 B	10
X 0.000 D	10	.90				.316	
X 6.250 D	10	1.00				0.000	
X 12.500 D	10	1.00				0.000	
X 25.000 D	10	1.00				0.000	
X 50.000 D	10	.90				.316	
X 75.000 D	10	1.00				0.000	
X 100.000 D	10	1.00				0.000	
Reproduction		No transformation				0.000 B	10
			X 0.000 D	10	27.80	7.345	
			X 6.250 D	10	30.10	1.729	
			X 12.500 D	10	30.00	4.082	
			X 25.000 D	10	31.80	2.936	
			X 50.000 D	10	28.30	10.199	
			X 75.000 D	10	32.50	2.550	
			X 100.000 D	10	32.80	3.293	

X = indicates concentrations used in calculations

=====  
 - HYPOTHESIS TEST -  
 =====

End Point	Day	Transformation/Analysis	NOEC	LOEC	TU	MSE	MSD
Proportion Alive	2	No transformation					
		Fisher Exact	>100.000	>100.000	< 1.00		
Proportion Alive	7	No transformation					
		Fisher Exact	>100.000	>100.000	< 1.00		
Reproduction		No transformation					
		Steel many-one rank test	>100.000	>100.000	< 1.00	29.084	5.664

Water Flea

Lab	Species	Test Date	Test Material	Permit	Protocol	Test Number
ABS	CD	8/08/2006	EFF1 (%)	MA0003891	EPAF 94	48823

## Statistics Parameters

## PROPORTION

End Point:	PA Proportion Alive		
Analysis:	Fisher Exact	Auto growth select	1 control
Transform:	No transformation		
Tail:	One-tailed, decreasing		
Constant:	-.01	Variance:	.01
Root:	0.00	Alpha Normality:	.01
		NOEC:	.05

EC/LC Method: F (P,S,G,L,N) Superdunnet: 4000

## GROWTH

End Point:	GR Reproduction		
Analysis:	EPA Flowchart	Auto growth select	1 control
Transform:	No transformation		
Tail:	One-tailed, decreasing		
Constant:	-.01	Variance:	.01
Root:	0.00	Alpha Normality:	.01
		NOEC:	.05

Calculate IC? Y (Y,N) IC resamples: 120

## Errors/Warnings

Type Number

EC/LC	71	No linear interpolation estimate can be calculated - none of the group response means < 100-p % of the control response me
IC	71	No linear interpolation estimate can be calculated - none of the group response means < 100-p % of the control response me
PROP	0	Analysis completed with no errors
GROW	0	Analysis completed with no errors



8/22/06

TOXIS ANALYSIS SUMMARY

Ceriodaphnia		Proportion Alive				Day 7
Lab	Species	Date	Test Material	Permit	Protocol	Test Number
ABS	CD	8/08/200	EFF1 (%)	MA0003891	EPAF 94	48823

Fisher Exact		Auto growth select	1 control
Transformation	Prop. Conc	Alive	P
No transformation	0.00B	1.00	
	X 0.00D	.90	
	X 6.25D	1.00	1.000
	X 12.50D	1.00	1.000
	X 25.00D	1.00	1.000
	X 50.00D	.90	1.000
	X 75.00D	1.00	1.000
	X 100.00D	1.00	1.000

NOEC	LOEC	TU	Alpha	Tail	Based on
>100	>100	<1	.05	One-sided	Fisher Exact







Aquatec Biological Sciences, Inc.

WATER FLEA DAILY REPORT

TEST NUMBER: 48823

(x) Chronic ( ) Acute hours

TEST DATE: 8-Aug-06

SOURCE: MA0003891

TEST MATERIAL: EFF1 (%)

Conc	Ctrl	Rep	Cont. #	Daily Reproduction										
				1	2	3	4	5	6	7	8	9	10	
0.00	B	1				5	8	0	17					
0.00	B	2				6	9	0	20					
0.00	B	3				4	6	0	15					
0.00	B	4				5	7	0	0					
0.00	B	5				3	0	4	6					
0.00	B	6				4	9	0	16					
0.00	B	7				5	9	0	16					
0.00	B	8				4	8	0	17					
0.00	B	9				3	8	0	17					
0.00	B	10				4	9	0	14	✓				
0.00	D	1				5	9	0	21					
0.00	D	2				4	8	0	20					
0.00	D	3				5	7	0	17					
0.00	D	4				4	8	0	16					
0.00	D	5				3	10	0	16					
0.00	D	6				4	9	0	8					
0.00	D	7				3	7	0	0					
0.00	D	8				5	8	0	16					
0.00	D	9				5	9	0	20					
0.00	D	10				5	9	0	17	✓				
6.25	D	1				5	10	0	17					
6.25	D	2				5	7	0	19					
6.25	D	3				6	8	0	16					
6.25	D	4				4	7	0	16					
6.25	D	5				5	8	0	19					
6.25	D	6				4	8	0	18					
6.25	D	7				5	10	0	15					
6.25	D	8				4	7	0	18					
6.25	D	9				5	8	0	19					
6.25	D	10				4	8	0	16	✓				
12.50	D	1				5	8	0	19					
12.50	D	2				4	10	0	19					
12.50	D	3				5	7	0	20					
12.50	D	4				4	9	0	8					
12.50	D	5				6	8	0	19					
12.50	D	6				4	9	0	14					
12.50	D	7				6	8	0	17					
12.50	D	8				5	10	0	19					
12.50	D	9				4	9	0	18					
12.50	D	10				3	8	0	15	✓				
25.00	D	1				6	7	0	20					
25.00	D	2				5	9	0	22					
25.00	D	3				4	8	0	19					
25.00	D	4				3	8	0	19					
25.00	D	5				5	10	0	20					
25.00	D	6				5	8	0	16					
25.00	D	7				5	9	0	18					

Aquatec Biological Sciences, Inc.

WATER FLEA DAILY REPORT

TEST NUMBER: 48823 (x) Chronic ( ) Acute hours  
 TEST DATE: 8-Aug-06  
 SOURCE: MA0003891 TEST MATERIAL: EFF1 (%)

Conc	Ctrl	Rep	Cont. #	Daily Reproduction										
				1	2	3	4	5	6	7	8	9	10	
25.00	D	8				4	8	0	15					
25.00	D	9				5	11	0	19					
25.00	D	10				5	10	0	15	/				
50.00	D	1				5	9	17	0					
50.00	D	2				6	8	0	20					
50.00	D	3				2	10	0	15					
50.00	D	4				6	9	0	17					
50.00	D	5				0	0	0	0					
50.00	D	6				4	9	0	17					
50.00	D	7				4	10	0	17					
50.00	D	8				6	9	0	20					
50.00	D	9				4	8	0	18					
50.00	D	10				5	10	0	18	↓				
75.00	D	1				5	8	0	17					
75.00	D	2				5	11	19	0					
75.00	D	3				6	9	0	18					
75.00	D	4				5	12	0	13					
75.00	D	5				5	10	0	19					
75.00	D	6				7	9	0	20					
75.00	D	7				5	10	0	18					
75.00	D	8				4	12	0	19					
75.00	D	9				4	10	0	16					
75.00	D	10				5	9	0	15	✓				
100.00	D	1				6	13	0	11					
100.00	D	2				4	10	0	12					
100.00	D	3				5	9	0	22					
100.00	D	4				6	10	0	20					
100.00	D	5				6	11	0	17					
100.00	D	6				7	11	0	18					
100.00	D	7				5	12	0	16					
100.00	D	8				6	10	0	15					
100.00	D	9				5	11	0	15					
100.00	D	10				4	12	0	19	/				

QC V  
 XS 8/22/06

End-of-Test Average Number  
of Neonates per Female

Effluent %	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10	Sum
Na Thio	4	5	5	5	4	5	6	6	5	5	50
Lab Ctrl.	5	6	4	5	3	4	5	4	3	4	43
Rec. Ctrl.	5	4	5	4	3	4	3	5	5	5	43
6.25	5	5	6	4	5	4	5	4	5	4	47
12.5	5	4	5	4	6	4	6	5	4	3	46
25	6	5	4	3	5	5	5	4	5	5	47
50	5	6	2	6	0	4	4	6	4	5	42
75	5	5	6	5	5	7	5	4	4	5	51
100	6	4	5	6	6	7	5	6	5	4	54

Day 4

Effluent %	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10	Sum
Na Thio	10	9	8	8	8	9	10	8	9	10	89
Lab Ctrl.	8	9	6	7	0	9	9	8	8	9	73
Rec. Ctrl.	9	8	7	8	10	9	7	8	9	9	84
6.25	10	7	8	7	8	8	10	7	8	8	81
12.5	8	10	7	9	8	9	8	10	9	8	86
25	7	9	8	8	10	8	9	8	11	10	88
50	9	8	10	9	0	9	10	9	8	10	82
75	8	11	9	12	10	9	10	12	10	9	100
100	13	10	9	10	11	11	12	10	11	12	109

ω ω

Day 5

Effluent %	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10	Sum
Na Thio	0	0	0	0	0	0	0	0	0	0	0
Lab Ctrl.	0	0	0	0	4	0	0	0	0	0	4
Rec. Ctrl.	0	0	0	0	0	0	0	0	0	0	0
6.25	0	0	0	0	0	0	0	0	0	0	0
12.5	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0
50	17	0	0	0	0	0	0	0	0	0	17
75	0	19	0	0	0	0	0	0	0	0	19
100	0	0	0	0	0	0	0	0	0	0	0

Day 6

Effluent %	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10	Sum
Na Thio	16	10	19	17	17	15	1	17	17	15	144
Lab Ctrl.	17	20	15	0	6	16	16	17	17	14	138
Rec. Ctrl.	21	20	17	16	16	8	0	16	20	17	151
6.25	17	19	16	16	19	18	15	18	19	16	173
12.5	19	19	20	8	19	14	17	19	18	15	168
25	20	22	19	19	20	16	18	15	19	15	183
50	0	20	15	17	0	17	17	20	18	14	142
75	17	0	18	13	19	20	18	19	16	15	155
100	11	12	22	20	17	18	16	15	15	19	165

**Ceriodaphnia dubia Survival and Reproduction Data (Page 1 of 4)**

Client: CAS / GE PITTSFIELD	Test #: 48823	SDG: 9753
Test Description: <i>Ceriodaphnia dubia</i> acute / chronic toxicity tests		

Effluent (%)	Repl 1	Repl 2	Repl 3	Repl 4	Repl 5	Repl 6	Repl 7	Repl 8	Repl 9	Repl 10	Remarks
Lab Ctrl	0	0	0	0	0	0	0	0	0	0	Day 0
Rec. Ctrl.	0	0	0	0	0	0	0	0	0	0	Sample: 32567
6.25	0	0	0	0	0	0	0	0	0	0	Fed Sel / YCT ✓
12.5	0	0	0	0	0	0	0	0	0	0	Sel Lot #: 8806sel
25	0	0	0	0	0	0	0	0	0	0	YCT Lot #: 8306YCT
50	0	0	0	0	0	0	0	0	0	0	Date/time/Init.
75	0	0	0	0	0	0	0	0	0	0	KS 8-8-06
100	0	0	0	0	0	0	0	0	0	0	11:45

Lab Ctrl	○	○	○	○	○	○	○	○	○	○	Day 1
Rec. Ctrl.	○	○	○	○	○	○	○	○	○	○	Sample: 32567
6.25	○	○	○	○	○	○	○	○	○	○	Fed Sel / YCT ✓
12.5	○	○	○	○	○	○	○	○	○	○	Sel Lot #: above
25	○	○	○	○	○	○	○	○	○	○	YCT Lot #: above
50	○	○	○	○	○	○	○	○	○	○	Date/time/Init.
75	○	○	○	○	○	○	○	○	○	○	KS 8-8-06
100	○	○	○	○	○	○	○	○	○	○	12:05

Lab Ctrl	○	○	○	○	○	○	○	○	○	○	Day 2
Rec. Ctrl.	○	○	○	○	○	○	○	○	○	○	Sample: 32613
6.25	○	○	○	○	○	○	○	○	○	○	Fed Sel / YCT ✓
12.5	○	○	○	○	○	○	○	○	○	○	Sel Lot #: above
25	○	○	○	○	○	○	○	○	○	○	YCT Lot #: above
50	○	○	○	○	○	○	○	○	○	○	Date/time/Init.
75	○	○	○	○	○	○	○	○	○	○	KS 8-10-06
100	○	○	○	○	○	○	○	○	○	○	13:40

0=original organism surviving, no young; D=original organism dead; #=# young released;  
 \*=lab-induced mortality. Receiving water is dilution water; Lab water is additional control.



**Ceriodaphnia dubia Survival and Reproduction Data (Page 2 of 4)**

Client: CAS / GE PITTSFIELD	Test #: 48823	SDG: 9753
Test Description: <i>Ceriodaphnia dubia</i> acute / chronic toxicity tests		

Effluent (%)	Repl 1	Repl 2	Repl 3	Repl 4	Repl 5	Repl 6	Repl 7	Repl 8	Repl 9	Repl 10	Remarks
Lab Ctrl	5	6	4	5	3	4	5	4	3	4	Day 3
Rec. Ctrl.	5	4	5	4	3	4	3	5	5	5	Sample: 32613
6.25	5	5	6	4	5	4	5	4	5	4	Fed Sel / YCT ✓
12.5	5	4	5	4	6	4	6	5	4	3	Sel/Lot #: 8306Sel
25	6	5	4	3	5	5	5	4	5	5	YCT Lot #: 8306YCT
50	5	6	2	6	0	4	4	6	4	5	Date/time/Init.
75	5	5	6	5	5	7	5	4	4	5	8-11-06
100	6	4	5	6	6	7	5	6	5	4	15:30 JG

Lab Ctrl	8	9	6	7	0	9	9	8	8	9	Day 4
Rec. Ctrl.	9	8	7	8	10	9	7	8	9	9	Sample: 32771
6.25	10	7	8	7	8	8	10	7	8	8	Fed Sel / YCT ✓
12.5	8	10	7	9	8	9	8	10	9	8	Sel/Lot #: 8306Sel
25	7	9	8	8	10	8	9	8	11	10	YCT Lot #: 71306YCT
50	9	8	10	9	0	9	10	9	8	10	Date/time/Init.
75	8	11	9	12	10	9	10	12	10	9	8-12-06
100	13	10	9	10	11	11	12	10	11	12	12:30 JG

Lab Ctrl	0	0	0	0	4	0	0	0	0	0	Day 5
Rec. Ctrl.	0	0	0	0	0	0	D	0	0	0	Sample: 32771
6.25	0	0	0	0	0	0	0	0	0	0	Fed Sel / YCT ✓
12.5	0	0	0	0	0	0	0	0	0	0	Sel/Lot #: above
25	0	0	0	0	0	0	0	0	0	0	YCT Lot #: above
50	17	0	0	0	0	0	0	0	0	0	Date/time/Init.
75	0	19	0	0	0	0	0	0	0	0	KS 8-13-06
100	0	0	0	0	0	0	0	0	0	0	13:20

0=original organism surviving, no young; D=original organism dead; #=# young released;  
 \*=lab-induced mortality. Receiving water is dilution water; Lab water is additional control.

**Ceriodaphnia dubia Survival and Reproduction Data (Page 3 of 4)**

Client: CAS / GE PITTSFIELD	Test #: 48823	SDG: 9753
Test Description: <i>Ceriodaphnia dubia</i> acute / chronic toxicity tests		

Effluent (%)	Repl 1	Repl 2	Repl 3	Repl 4	Repl 5	Repl 6	Repl 7	Repl 8	Repl 9	Repl 10	Remarks
Lab Ctrl	17	20	15	0	6	16	16	17	17	14	Day 6
Rec. Ctrl.	21	20	17	16	16	8	D	16	20	17	Sample: 32771
6.25	17	19	16	16	19	18	15	18	19	16	Fed Sel / YCT —
12.5	19	19	20	8	19	14	17	19	18	15	Sel Lot #: —
25	20	22	19	19	20	16	18	15	19	15	YCT Lot #: —
50	0	20	15	17	0/D	17	17	20	18	18	Date/time/Init.
75	17	0	18	13	19	20/9ks	18	19	16	15	KS 8-14-06
100	11	12	22	20	17	18	16	15	15	19	14:10

Lab Ctrl											Day 7
Rec. Ctrl.											Sample:
6.25											Fed Sel / YCT
12.5											Sel Lot #:
25											YCT Lot #:
50											Date/time/Init.
75											
100											

Lab Ctrl											Day 8
Rec. Ctrl.											Sample:
6.25											Fed Sel / YCT
12.5											Sel Lot #:
25											YCT Lot #:
50											Date/time/Init.
75											
100											

0=original organism surviving, no young; D=original organism dead; #=# young released;  
 \*=lab-induced mortality. Receiving water is dilution water; Lab water is additional control.

**Ceriodaphnia dubia Survival and Reproduction Data (Page 4 of 4)**

Client: CAS / GE PITTSFIELD	Test #: 48823	SDG: 9753
Test Description: <i>Ceriodaphnia dubia</i> acute / chronic toxicity tests		

**Sodium thiosulfate control**

Effluent (%)	Repl 1	Repl 2	Repl 3	Repl 4	Repl 5	Repl 6	Repl 7	Repl 8	Repl 9	Repl 10	Remarks
Na thio	0	0	0	0	0	0	0	0	0	0	Day 0 Fed KS ✓ 8-8-06 11:30
Na thio	0	0	0	0	0	0	0	0	0	0	Day 1 Fed KS ✓ 8-9-06 11:45
Na thio	0	0	0	0	0	0	0	0	0	0	Day 2 Fed KS ✓ 8-10-06 13:25
Na thio	4	5	5	5	4	5	6	6	5	5	Day 3 Fed JG ✓ 8-11-06 15:30
Na thio	10	9	8	8	8	9	10	8	9	10	Day 4 Fed JG ✓ 8-12-06 12:30
Na thio	0	0	0	0	0	0	0	0	0	0	Day 5 Fed KS ✓ 8-13-06 13:00
Na thio	16	10	19	17	17	15	1/D	17	17	15	Day 6 Fed KS ✓ 8-14-06 13:50
Na thio											Day 7 Fed
Na thio											Day 8 Fed

0=original organism surviving, no young; D=original organism dead; #=# young released;

\*=lab-induced mortality. Receiving water is dilution water; Lab water is additional control.

0 <sup>Immobile</sup> May be dead. KS. 8-13-06

Documentation of Collection of *Ceriodaphnia dubia* for Toxicity Testing

Brood Board	Date / Time Init. when cleared of Neonates	Date / Time Init. when neonates collected	No. Cups with 8 or more neonates	Fed YCT / Selenastrum (Lot #s)
7/31A	KS 8/7 11:40	-	-	✓ 72506 Sel 8306 YC
7/31B	KS 8/7 11:55	-	-	✓
7/31A	KS 8/7/06 →	16:45	16	✓
7/31B	KS 8/7/06 →	16:45	0	-
7/31A	KS 8/8 →	00:00	21	✓
7/31B	KS 8/8 →	00:00	42	✓

Project Description / Test Use: GE Pitfield

cdcoll.doc



Water Chemistry Data

Client: CAS / GE PITTSFIELD      Test Description: C. dubia acute / chronic toxicity \*      Test #: 48823      SDG: 9753

		FINAL WATER CHEMISTRY DATA						
Day:		1	2	3	4	5	6	7
Lab Contr	pH	7.3	7.3	7.4	7.5	7.3	7.2	
	DO	7.9	8.1	7.8	8.3	7.8	7.6	
	Temp.	24.9	24.9	25.1	24.8	24.7	24.7	
	Conduct.	251	210	211	209	204	211	
Rec. W Contr (Dil. Water)	pH	7.7	7.7	7.5	7.6	7.7	7.8	
	DO	7.7	7.8	7.6	8.2	7.9	7.5	
	Temp.	25.1	24.9	24.9	24.9	24.4	24.5	
	Conduct.	282	281	212	208	282	282	
6.25%	pH	7.8	7.8	7.7	7.8	7.9	8.0	
	DO	7.5	7.6	7.6	8.2	7.8	7.5	
	Temp.	25.1	25.5	24.9	24.8	24.5	24.7	
	Conduct.	329	329	284	283	349	349	
12.5%	pH	7.8	7.9	7.8	7.9	8.0	8.0	
	DO	7.5	7.6	7.5	8.2	7.7	7.2	
	Temp.	25.0	25.7	25.0	24.8	24.7	24.8	
	Conduct.	375	377	352	352	415	419	
25%	pH	7.9	8.0	7.9	8.0	8.1	8.1	
	DO	7.4	7.5	7.5	8.1	7.7	7.4	
	Temp.	25.1	25.7	25.1	24.9	24.8	24.8	
	Conduct.	466	474	489	489	547	550	
50%	pH	8.1	8.1	8.2	8.3	8.3	8.3	
	DO	7.4	7.5	7.4	8.2	7.7	7.5	
	Temp.	26.1	25.6	25.2	24.9	24.7	24.8	
	Conduct.	645	658	750	749	787	798	
75%	pH	8.2	8.2	8.1	8.2	8.2	8.3	
	DO	7.4	7.5	7.5	8.2	7.8	7.5	
	Temp.	25.1	25.8	25.0	24.8	24.8	24.9	
	Conduct.	821	834	948	960	976	987	
100%	pH	8.2	8.2	8.1	8.2	8.2	8.2	
	DO	7.5	7.6	7.5	8.2	7.8	7.5	
	Temp.	25.0	25.9	25.1	24.9	24.8	24.9	
	Conduct.	985	984	1131	1161	1171	1167	
Sample #								
Init./Date	KS 8/9	KS 8/10	JG 8/11	JG 8/12	KS 8/13	KS 8/14		

		INITIAL WATER CHEMISTRY DATA						
Day:		0	1	2	3	4	5	6
Lab Contr	pH	7.6	7.5	7.2	7.4	7.4	7.3	
	DO	8.2	7.8	8.2	8.4	8.5	8.3	
	Temp.	24.2	24.3	25.0	24.4	24.7	24.8	24.4
	Conduct.	240	241	198	200	198	197	
Rec. W Contr (Dil. Water)	pH	7.6	7.7	7.4	7.5	7.8	7.9	
	DO	8.7	8.9	8.9	8.5	8.5	9.1	
	Temp.	24.2	24.9	26.0	24.8	25.1	25.7	24.5
	Conduct.	276	270	201	200	274	275	
6.25%	pH	7.6	7.7	7.5	7.6	7.9	7.5	
	DO	8.7	9.0	9.0	8.5	8.5	9.2	
	Temp.	24.2	25.0	26.0	24.6	25.0	25.6	24.7
	Conduct.	323	322	277	276	344	345	
12.5%	pH	7.6	7.7	7.5	7.6	7.9	7.6	
	DO	8.6	9.0	8.9	8.5	8.5	9.2	
	Temp.	24.1	25.1	26.0	24.7	25.0	25.7	
	Conduct.	375	373	347	346	412	414	
25%	pH	7.6	7.7	7.6	7.8	7.9	7.6	
	DO	8.6	9.0	8.9	8.4	8.5	9.2	
	Temp.	24.1	25.0	26.0	24.6	25.1	25.5	
	Conduct.	469	469	484	482	544	547	
50%	pH	7.6	7.7	7.7	7.9	8.0	7.7	
	DO	8.5	8.9	8.9	8.4	8.5	9.1	
	Temp.	24.0	25.0	26.0	24.6	25.1	25.2	
	Conduct.	656	655	755	749	802	807	
75%	pH	7.7	7.8	7.7	7.9	8.0	7.8	
	DO	8.5	8.8	8.9	8.2	8.5	8.9	
	Temp.	23.9	25.0	25.7	24.4	25.0	25.1	
	Conduct.	841	840	1014	1008	1055	1057	
100%	pH	7.7	7.8	7.7	7.9	8.1	7.8	
	DO	8.5	8.8	8.9	8.1	8.4	8.8	
	Temp.	24.0	25.3	25.3	24.3	25.1	25.0	
	Conduct.	1027	1023	1268	1265	1303	1306	
Sample #	32567	32567	32613		32771			
Init./Date	KS 8/9	KS 8/10	KS 8/10	JG 8/12	KS 8/13	KS 8/14		

Aquatec Biological Sciences Williston, Vermont

Reviewed by: J Date: 8/22/06

# Alkalinity and Hardness Worksheet

Sample Identifier	LIMS Identifier	Sub ID Code	Sampling Date	Sample Volume	Alkalinity				Hardness						
					Initial Titrant (ml)	Final Titrant (ml)	Analyst	Analysis Date	Alkalinity	Sample Volume	Initial Titrant (ml)	Final Titrant (ml)	Analyst	Analysis Date	Hardness
32567	Outfall Composite		8/8/06	25	4.1	10.8	KK	8/9/06	268.0	50	22.1	37.5	KS	8/8/06	308.0
32568	Housatonic River A		8/8/06	25	10.8	13.1	KK	8/9/06	92.0	50	37.7	43	KS	8/8/06	106.0
32613	Outfall Composite		8/10/06	25	32.2	40.7	KK	8/10/06	340.0	50	21.5	30.1	KK	8/10/06	172.0
32614	Housatonic River		8/10/06	25	40.7	42.4	KK	8/10/06	68.0	50	30.1	34.3	KK	8/10/06	84.0
32771	Outfall Composite		8/12/06	25	19	28	KS	8/13/06	360.0	25	17.1	26	JG	8/12/06	356.0
32772	Housatonic River		8/12/06	25	28	30.5	KS	8/13/06	100.0	50	26	31.5	JG	8/12/06	110.0

*D* 8/22/06

## Sample Preparation

Client: CAS / GE PITTSFIELD Test #: 48823 ( <i>C. dubia</i> )	SDG: 9753
Test Description: <i>Ceriodaphnia dubia</i> acute / chronic toxicity tests	

### Sample Identification:

Sample Description	Effluent	Receiving Water	Effluent	Receiving Water	Effluent	Receiving Water
Sample #	32567	32568	32613	32614	32771	32772

### Sample Preparation:

Filtration	60 micron	60 micron	60 micron	60 micron	60 micron	60 micron
Chlorine <sup>1</sup>	ND	ND	ND	ND	ND	ND
Dechlorine <sup>2</sup>	No	No	No	No	No	No
Prepared by (Init./date)	KK 8-8-06		KS 8-10-06		JG 8-12-06	

<sup>1</sup> Record vol. 0.025 N sodium thiosulfate to dechlorinate 100 mL sample or record "ND" (not detected).

<sup>2</sup> Dechlorination not required per instructions from client.

Daily Dilution Plan for: *Ceriodaphnia dubia* chronic toxicity test

Concentration (%)	Volume Effluent (mL)	Volume Diluent (mL)	Total Volume (mL)
Lab Water (Additional Control)	0	300	300
Na thiosulfate control	0	300	300
Receiving water (Dilution Water)	0	300	300
6.25	18.8	281.2	300
12.5	37.5	262.5	300
25	75	225	300
50	150	150	300
75	225	75	300
100	300	0	300
Total Volume	806.3	1893.7	

### Comments:

Collect alkalinity and hardness samples on each new effluent and receiving water sample.

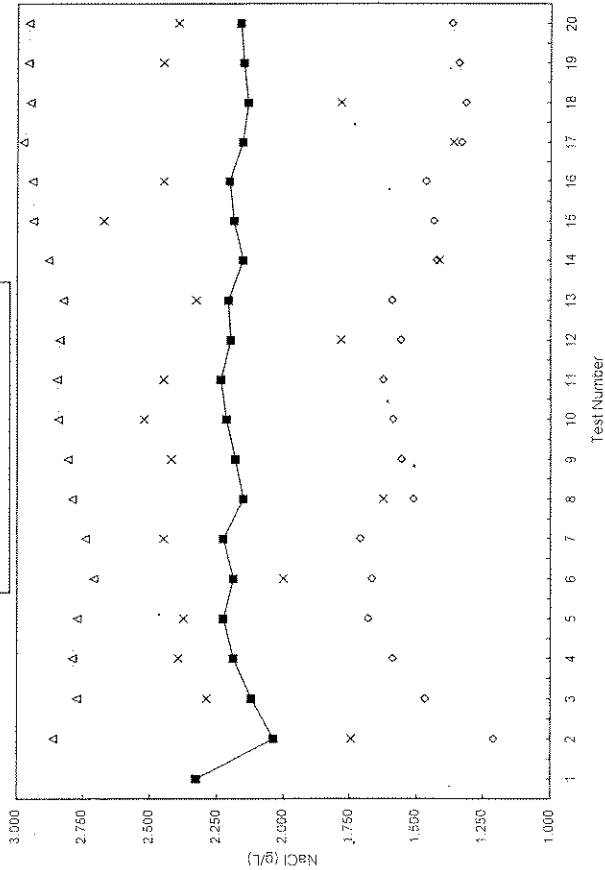


**Appendix 5**  
**Standard Reference Toxicant test Control Chart**

**Ceriodaphnia dubia**  
Reference Control Chart for NaCl Acute Toxicity

Test Number	Test Date	LC50 (g/L)	Mean LC50	Calculated limits Upper	Calculated limits Lower	Organism Source
1	01/04/05	2.328	2.33			
2	02/03/05	1.744	2.04	2.86	1.21	Aquatec Biological Sciences
3	3/2/2005	2.289	2.12	2.77	1.47	Aquatec Biological Sciences
4	4/1/2005	2.395	2.19	2.79	1.59	Aquatec Biological Sciences
5	5/3/2005	2.375	2.23	2.77	1.68	Aquatec Biological Sciences
6	6/2/2005	2.000	2.19	2.71	1.67	Aquatec Biological Sciences
7	7/15/2005	2.450	2.23	2.74	1.71	Aquatec Biological Sciences
8	8/2/2005	1.625	2.15	2.79	1.51	Aquatec Biological Sciences
9	9/6/2005	2.422	2.18	2.81	1.56	Aquatec Biological Sciences
10	10/7/2005	2.522	2.22	2.84	1.59	Aquatec Biological Sciences
11	11/8/2005	2.450	2.24	2.85	1.62	Aquatec Biological Sciences
12	12/6/2005	1.782	2.20	2.84	1.58	Aquatec Biological Sciences
13	1/3/2006	2.328	2.21	2.82	1.59	Aquatec Biological Sciences
14	2/2/2006	1.414	2.15	2.88	1.42	Aquatec Biological Sciences
15	3/2/2006	2.672	2.19	2.94	1.43	Aquatec Biological Sciences
16	4/18/2006	2.450	2.20	2.94	1.46	Aquatec Biological Sciences
17	5/2/2006	1.361	2.15	2.98	1.33	Aquatec Biological Sciences
18	6/13/2006	1.782	2.13	2.95	1.32	Aquatec Biological Sciences
19	7/25/2006	2.450	2.15	2.96	1.34	Aquatec Biological Sciences
20	8/14/2006	2.395	2.16	2.96	1.37	Aquatec Biological Sciences

Reference Control Chart  
*Ceriodaphnia dubia* Acute LC50

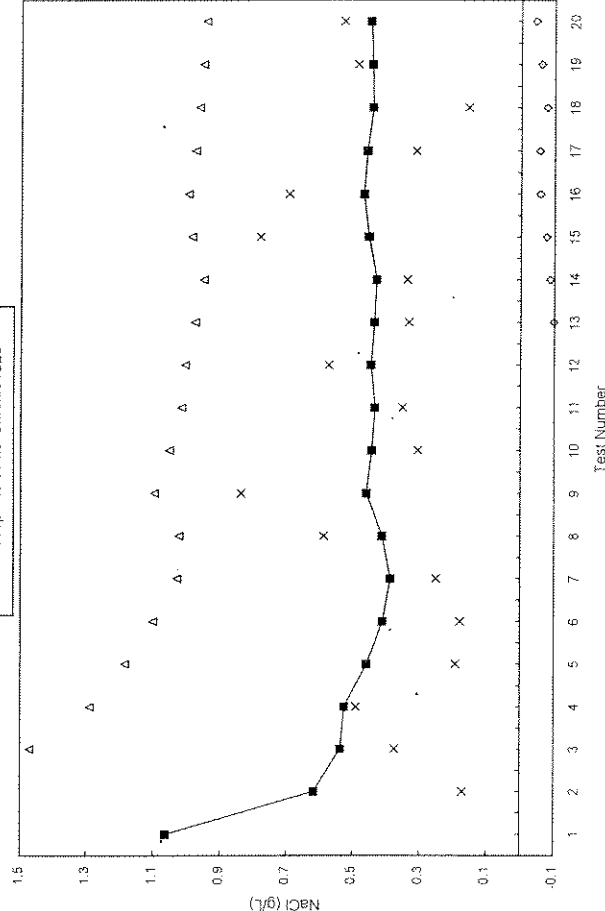


x LC50    —■— Mean LC50    △ Upper Limit    ◇ Lower Limit

**Ceriodaphnia dubia**  
Reference Control Chart for NaCl Chronic Toxicity

Test Number	Test Date	IC-25 (g/L)	Mean IC-25	Calculated limits Upper	Calculated limits Lower	Organism Source
1	01/04/05	1.063	1.06			
2	02/03/05	0.171	0.62	1.88	-0.64	Aquatec Biological Sciences
3	03/02/05	0.375	0.54	1.47	-0.40	Aquatec Biological Sciences
4	04/01/05	0.49	0.52	1.29	-0.24	Aquatec Biological Sciences
5	05/03/05	0.192	0.46	1.18	-0.27	Aquatec Biological Sciences
6	06/02/05	0.178	0.41	1.10	-0.28	Aquatec Biological Sciences
7	07/05/05	0.25	0.39	1.03	-0.25	Aquatec Biological Sciences
8	08/02/05	0.587	0.41	1.02	-0.20	Aquatec Biological Sciences
9	09/06/05	0.637	0.46	1.10	-0.18	Aquatec Biological Sciences
10	10/07/05	0.305	0.44	1.05	-0.16	Aquatec Biological Sciences
11	11/08/05	0.352	0.44	1.02	-0.14	Aquatec Biological Sciences
12	12/06/05	0.573	0.45	1.01	-0.11	Aquatec Biological Sciences
13	01/03/06	0.333	0.44	0.98	-0.10	Aquatec Biological Sciences
14	02/02/06	0.339	0.43	0.95	-0.09	Aquatec Biological Sciences
15	03/02/06	0.78	0.46	0.99	-0.08	Aquatec Biological Sciences
16	04/18/06	0.693	0.47	1.00	-0.06	Aquatec Biological Sciences
17	05/02/06	0.313	0.46	0.98	-0.06	Aquatec Biological Sciences
18	06/13/06	0.155	0.44	0.96	-0.08	Aquatec Biological Sciences
19	07/25/06	0.488	0.45	0.95	-0.06	Aquatec Biological Sciences
20	08/14/06	0.529	0.45	0.94	-0.04	Aquatec Biological Sciences

Reference Control Chart  
*Ceriodaphnia dubia* Chronic IC25



x IC-25    —■— Mean IC-25    △ Upper Limit    ◇ Lower Limit

**Appendix 6**  
**SOP TOX2-002, Standard Operating Procedure for**  
**Cladoceran, *Ceriodaphnia dubia*, Survival and**  
**Reproduction Toxicity Test**

**Standard Operating Procedure for  
Cladoceran, *Ceriodaphnia dubia* Survival and Reproduction Toxicity Test  
U.S. EPA Method 1002.0 (NELAC ACCREDITED METHOD)**

### **1.0 IDENTIFICATION OF TEST METHOD**

This SOP describes procedures for conducting a chronic toxicity test with the cladoceran, *Ceriodaphnia dubia*. This test is used to estimate the chronic toxicity of whole effluents or other aqueous samples with this test species.

### **2.0 APPLICABLE MATRIX OR MATRICES**

The described test is used to assess toxicity of wastewaters (effluents, influents), receiving waters, and other prepared aqueous solutions.

### **3.0 DETECTION LIMIT**

Not applicable.

### **4.0 SCOPE AND APPLICATION**

This SOP describes procedures for performing a static-renewal chronic toxicity test with cladoceran, *Ceriodaphnia dubia*.

### **5.0 SUMMARY OF TEST METHOD**

A summary of the test method is attached (Table 1). Organisms are exposed, for 6 – 8 days, typically to five concentrations of effluent (or aqueous sample) and the controls. Chronic toxicity is estimated by calculating the chronic no-observed-effect-concentration (C-NOEC). The IC25 is an additional chronic value that may be used to estimate chronic toxicity to *Ceriodaphnia dubia*. This procedure is based on the guidelines of EPA-821-R-02-013 (Method 1002.0). In some US EPA regions, NPDES permits require calculation of acute values from the 48-h survival data within the chronic test. The A-NOEC and 48-h LC50 are calculated from the 48-h data using TOXIS2.

### **6.0 DEFINITIONS**

LC50: The computed concentration that results in 50 percent mortality of the test organisms (may be computed from 48-h data).

A-NOEC: The acute no-observed-effect-concentration. The highest concentration resulting in no statistically significant reduction in survival or reproduction relative to the control.

C-NOEC: The chronic no-observed-effect-concentration. The highest concentration resulting in no statistically significant reduction in survival relative to the control.

IC25: A value calculated by linear interpolation to provide a point-estimate of effluent (or other aqueous samples) that causes a 25% reduction in reproduction relative to the control.

Initial chemistry: Water chemistry parameters (temperature, pH, dissolved oxygen, and conductivity) measured from a sub-sample of all test concentrations and controls before the time of test start and daily before test solution renewals.

Final chemistry: Water chemistry parameters (temperature, pH, dissolved oxygen, and conductivity) measured in all test concentrations and controls daily after test solution renewals (old water from the test cups) and at the end of the test.

### **7.0 INTERFERENCES**

Not applicable.

### **8.0 SAFETY**

Samples acquired for toxicity testing may contain unknown toxicants or health hazards. Protective equipment (e.g., lab coats, disposable gloves) should be worn when handling samples.

### **9.0 EQUIPMENT AND SUPPLIES**

Calibrated Instrumentation and Water Quality Apparatus:

pH meter  
Dissolved Oxygen (DO) meter  
Thermometer (accurate to 0.1°C)  
Conductivity meter  
Alkalinity titration apparatus  
Hardness titration apparatus

**Additional Equipment:**

Test chambers (30-ml disposable cups), color coded  
Test board with randomized scheme, glass cover  
Light table  
Waste collection bucket

**Forms and Paperwork:**

Survival and reproduction data form  
Initial and final chemistry data form  
Alkalinity and hardness data form

## **10.0 REAGENTS AND STANDARDS**

Laboratory reconstituted water (soft water, moderately hard water) or culture water  
Deionized water  
Reference toxicant solutions

## **11.0 SAMPLE COLLECTION, PRESERVATION, SHIPMENT, AND STORAGE**

Samples for chronic toxicity tests are typically collected, cold-preserved, and shipped to Aquatec. Sample acceptance and log-in procedures are outlined in SOP TOX1-017. After receipt at Aquatec, samples should be refrigerated when not being prepared for use in toxicity tests. The holding time for effluent samples is 36 hours from the time of collection until the time of first use. Typically a series of three samples (effluent and receiving water) are shipped and received for testing. The first samples are used for Days 0 (test start) and renewal on Day 1; the second samples are used for renewal on Days 2 and 3; the third samples are used for renewal on Days 4, 5, and 6 (and 7 and 8, if required).

## **12.0 QUALITY CONTROL**

For the test to be acceptable, survival in the controls must equal or exceed 80 percent. Also, the control females must have produced an average of 15 or more young per female and at least 60% of the surviving females in the controls must have produced a third brood. Also, the test conditions must be within the guidelines described in the protocol (Table 1).

Standard reference toxicant (SRT) tests (monthly 48-h acute tests with sodium chloride as the toxicant and quarterly chronic SRT tests with sodium chloride as the toxicant) are performed with a representative sub-set of the test organisms and result in an LC50 (for acute SRTs) or IC25 (for chronic SRTs) within the boundaries of the control chart. Deviations from acceptance standards should be documented and may result in the test being viewed as “conditionally acceptable” or “unacceptable” (See Section 19.0 below).

## **13.0 CALIBRATION AND STANDARDIZATION**

Not applicable for the toxicity test. Any instrumentation (e.g., water quality instrumentation) required for conducting the test must be calibrated on a daily basis following the relevant SOP or instrument guidelines.

## **14.0 PROCEDURE**

### **14.1 Test System and Conditions**

The test system and environmental conditions for the chronic toxicity test are summarized in Table 1.

## 14.2 Test Organisms

### Procurement and Documentation

Test organisms for the *Ceriodaphnia* chronic test are obtained from Aquatec Biological Sciences, Inc. laboratory cultures. Neonates less than 24-h old and all collected within an 8-h period are used for testing. Documentation of brood board source and date and time must be included in the project data package. *Ceriodaphnia dubia* are cultured in individual culture cups (one organism per cup) maintained at  $25 \pm 1^{\circ}\text{C}$ . Neonates collected for testing may be held in individual culture cups until distributed to tests.

### Evaluation of *Ceriodaphnia* Condition and Acclimation

If, during examination, it appears that more than 10 percent of the parent females or the neonates collected for the test have died during the 24-h period preceding the test, notify the Toxicity Laboratory Manager immediately. A decision will be made regarding the possibility of collecting an alternate stock of neonates for testing. If the test is to be delayed, document the reason on the Project Documentation form. Also, it may be necessary to notify the client.

**NOTE:** Brood boards for a test are started 7-10 days prior to the test. These brood boards must be carefully monitored for general health and reproductive condition. Documented tracking of parent organisms for survival and reproduction must be performed daily prior to collecting neonates for a chronic toxicity test. Any problems with brood board *Ceriodaphnia dubia* stocks should be reported to the Laboratory Manager immediately.

Ordinarily, *C. dubia* neonates are cultured in laboratory water (1:1 mix of Lamoille River water and moderately hard water amended with selenium and vitamin B12) up until the time of test initiation. The temperature of the parent and neonate stocks should be maintained at  $25 \pm 1^{\circ}\text{C}$ . Return parent stock females from the neonate cups to the source batch culture.

If acclimation to a client's receiving water is required, gradual water changes should be made (eg., 25%-50% hourly) to the test organisms to receiving water.

### Food

At the time of neonate collection, or on the morning of a scheduled test, feed neonates in each cup 0.1 ml *Selenastrum* and 0.1 ml yeast-Cerophyll-trout chow (YCT).

### Sample Preparation

Procedures for effluent and diluent sample preparation are described in a SOP TOX1-013. The typical dilution factors are 0.5, however, consult applicable client permits for the appropriate dilution factor and included permit-limit concentrations when required.

## 14.3 Initiate the Test

### Prepare the test chambers

For a test where receiving water is used as the diluent, an additional laboratory control (e.g., soft water, moderately hard water, or culture water) must be included in the test array. New 30-mL disposable plastic condiment cups are used as test chambers. Each test treatment will have ten true replicates (no water connection), therefore, 70 test cups will be required. Test cups should be color coded with stick-on dots as follows:

<u>Color Code</u>	<u>Test Treatment</u>
Green	Laboratory Control
Dark Blue	Receiving water Control
Light Blue	Lowest test concentration
Orange	Next lowest test concentration
Yellow	Middle test concentration
Red	Next highest test concentration
Star	Highest test concentration

Typically the receiving water is the dilution water and statistical control for a toxicity test, however, there are cases where a client's permit requires that laboratory water be used as dilution water (and statistical control) and the receiving water is used as an additional (non-statistical) control.

### **Measure Initial Chemistries**

Remove an aliquot (approximately 100 ml) from each test dilution and the controls. This aliquot is used to measure the following parameters: pH, DO, temperature, and conductivity. Record the data directly on the Toxicity Test Data Form for Day 0. The temperature of the solutions must be within a range of  $\pm 1^{\circ}\text{C}$  of the selected test temperature ( $25^{\circ}\text{C}$ ).

#### **Recommended water chemistry ranges at time of test initiation**

If solutions are not within the ranges specified below, notify the Toxicity Laboratory Director.

pH - acceptable range, 6.0-9.0

DO - acceptable range, 4.0 – 8.5 mg/L

Temperature - acceptable range,  $24-26^{\circ}\text{C}$

Conductivity - often has a pattern of increasing conductance with increasing sample strength.

Collect a sub-sample of each new sample of the controls and 100% effluent for subsequent analysis of hardness and alkalinity. Label and store in a refrigerator at  $4^{\circ}\text{C}$ .

If prepared solutions are to be stored temporarily prior to starting the test, store the test solutions at the target test temperature ( $24-26^{\circ}\text{C}$ ).

Decant test solutions to the appropriate test cups, approximately 20 mL per cup. Place the test cups in randomized positions on the test board.

### **Prepare and distribute test organisms**

Select approximately 20 brood cups (containing neonates collected for the test), each with 8 or more neonates. Pool neonates in a crystallizing dish prior to distribution to the test. Randomly distribute neonates to test containers (5 per test container) with a transfer pipet.

### **Distribution of test organisms and test initiation**

Neonates are distributed to the test board following the blocking procedure outlined in EPA-600-4-91/002. This blocking procedure allows the performance of each parent female to be tracked. If a particular female produces one weak offspring or male for use in the test, the likelihood of producing all weak offspring or all males is greater. By using the known parentage technique, poor performance of young from a given female can be omitted from all concentrations. The procedure is as follows:

- Select 10 brood cups (containing neonates collected for the test), each with 8 or more neonates. From a single cup, distribute (with a transfer pipet) one neonate to the

laboratory control cup, then one to the diluent control, one to the low test concentration, etc., working from low to high test concentration in test column 1.

- Rinse the pipet with deionized water.
- Select a second neonate up and distribute neonates to column 2 in the same manner as in Step a.
- Continue distributing neonates from a single neonate cup to the remaining test columns as in Step a. until all test chambers contain a single neonate.
- Record the date and time of test initiation on the *Ceriodaphnia* Survival and Reproduction Data form.

#### **Aeration**

Do not aerate *Ceriodaphnia dubia* chronic tests.

#### **Feed the test organisms**

Add 0.1 mL of *Selenastrum* and 0.1 mL of YCT solution to each test cup. Record the feeding time on the Survival and Reproduction Data form.

### **14.4 Monitoring the test**

#### **Daily Monitoring and Test Solution Renewal**

The procedures described below pertain to Days 1-8 of the test (The test starts Day 0).

#### **Sample preparation**

Generally, samples collected on three separate occasions are used for the chronic test (e.g., samples are delivered on Day 0, Day 2 and Day 4). Samples are prepared according to the procedures outlined in SOP TOX1-013. Use the most recently collected samples (effluent and dilution water) for the renewal procedure. The initial chemistry parameters of temperature, pH, dissolved oxygen, and conductivity should be measured daily and recorded on each test concentration prior to completing the test solution renewal.

#### **Test solution renewal and biological monitoring**

Test solutions in each test cup are renewed daily. During the renewal procedure, take care to avoid injuring neonates. The controls should be renewed first, then the low concentrations and then the higher test concentrations. This procedure will minimize the potential for back-contamination of a lower test concentration with a higher test concentration. Conduct the renewal procedure over a light table.

- Remove the test board from the test rack and remove the glass cover. Measure the temperature of one replicate of each test treatment. Record the data on the Final Chemistry Data form.
- Fill ten new cups coded for laboratory control with approximately 15-20 mL of laboratory control water. Remove laboratory control Replicate 1 test cup from the test board.
- If the parent organism in this replicate is alive, transfer the organism with a large-bore pipet to the new test cup containing new control solution. Record a zero (if no neonates are present) in the data box for Laboratory Control, Replicate 1.
- If the organism is dead, record a "D" in the data box for this replicate. (It is helpful at this point to record "D" in the box for this replicate for subsequent test days to prevent that data box from being used in the future.)
- Examine the original test cup carefully to see whether any neonates were released by the parent organism in the prior 24-hour period. (Neonate production does not normally start until Day 3 or Day 4 of the test.) If live neonates are present in the cup, the exact neonate count must be



recorded in the data box for the replicate. If the parent organism has died record: D / # of neonates released. If a parent organism is accidentally injured and dies, designate as "\*" and footnote the occurrence of the accidental mortality. This organism will be deleted from the data analysis. Place marble to fill any location that is empty due to mortality. If the parent organism is missing, it should be scored as "D" (unless a known and documented laboratory error resulted in the loss of the organism).

- Continue the procedure outlined above for Control Replicates 2-10. Pool the "old test water" from the old test cups into a beaker or cup. This must be saved for final chemistry analysis.

The decanted water ("old water") from the ten replicates must be pooled and saved for final chemistry determinations. Continue renewals for all test solutions working from low to high test concentrations.

When renewals have been completed, record your initials, date, and time of renewal in the remarks section of the Survival and Reproduction Data form. Also, indicate the sample number used for renewal. Replace all test cups in the assigned position on the test board.

#### **Final Chemistry**

Measure the pH, D.O., and conductivity (Temperature has already been measured in "a." above.) of the pooled water sample decanted from the ten replicates for each test treatment. It is preferable to do this immediately after completing the renewal to obtain an accurate representation of the test conditions. Discard the solution in the appropriate waste receptacle.

#### **Feeding**

As soon as the renewal procedure has been completed, add 0.1 ml of *Selenastrum* and 0.1 ml of YCT to each test cup. Record the time fed in the Remarks section of the Survival and Reproduction Data form. Replace the glass cover on the test board and return the test board to the testing area.

#### **14.5 Termination of the Toxicity Test**

The *Ceriodaphnia dubia* chronic test may be ended on Day 6, 7, or 8. The test should be ended when 60% or more of the surviving females in the controls have produced their third brood and have released an average of at least 15 neonates per female during the test. If this requirement has not been reached on Day 8, the final test data (survival and reproduction) should be recorded and the test should be ended.

#### **Final Biological Monitoring (Survival and Reproduction)**

- Measure and record temperatures from the test.
- For each replicate, determine whether the parent female is alive or dead and record the results in the appropriate data box of the Survival and Reproduction Data form. Also, count the number of neonates released by the parent female in the prior 24 hours and record the data in the appropriate box.

Because of the rapid rate of development of *Ceriodaphnia*, all observations of organism survival and neonate production should be completed within two hours. Record the time of test completion in remarks section.

#### **Final Chemistry (end of test)**

Combine the test solution from each replicate of a test treatment. Measure and record the final chemistry parameters (pH, DO, and conductivity) as specified above.

### **15.0 CALCULATIONS**

The C-NOEC is calculated using the TOXIS2 software program. The IC25 can also be computed automatically using the TOXIS2 program. Enter the test data into the TOXIS2 template prepared for each client. The dilution water control should be entered as the "D" control and is used for statistical comparisons. The additional control is entered as the "B" control. Run the statistical program for the EPA chronic Toxicity Test flow chart (Figures 4 and 6, pages 168 and 173 of EPA-821-02-013) and print the entered test data and the statistical results. Check the entered data against the original hand-written test data and record the date and initials. Place the statistical printouts in the project folder (by SDG) and return the folder with all paperwork to the project holding file.

### **16.0 METHOD PERFORMANCE**

Test conditions should be at or near the limits outlined in the Protocol (Table 1).

### **17.0 POLLUTION PREVENTION**

Effluents and receiving waters used in toxicity tests are stored refrigerated until the test data have been reviewed and deemed acceptable by the Laboratory Manager or the Director. Contact the Laboratory Manager or Director prior to discarding any stored samples. Effluent and receiving water samples may be discarded following a period of chlorination (e.g., 30 minutes). Effluent samples that have exhibited high toxicity in low test concentrations should be discarded in the "Aqueous Waste" drum for disposal by a certified waste handler. Other samples containing unknown or suspected toxic contaminants should be discarded in the "Aqueous Waste" drum.

### **18.0 DATA ASSESSMENT AND ACCEPTANCE CRITERIA FOR QUALITY CONTROL MEASURES**

The Laboratory Manager and/or the Laboratory Director will review test data to ensure that all elements of the data package are available and complete (Log-in work sheets, test IDs, Chain-of-Custody documentation, toxicity test bench sheets, organism records, and SRT data). The reviewer will check to package for transcription errors, clarity of observations and notations, initials, and completeness. The reviewer will also compare the test data to the Quality Control standards outlined in Section 12.0 above. Any deficiencies will be addressed and resolved (with appropriate notation) prior to assembling the package for the final report.

### **19.0 CORRECTIVE ACTIONS FOR OUT-OF-CONTROL DATA**

Data that do not meet Quality Control standards will be assessed and a decision will be made whether to reject the test data and deemed "unacceptable" (requiring a repeated test) or "provisionally acceptable" (requiring a qualifier in the final report). An example of an unacceptable test could include one where the controls fail to meet the 80% survival requirement. A designation of a "provisionally acceptable" test might include one where samples were received outside of prescribed holding temperatures or times.

### **20.0 CONTINGENCIES FOR HANDLING OUT-OF-CONTROL OR UNACCEPTABLE DATA**

Analysts experiencing an "out-of-control" event (e.g., test replicate spills, test solutions improperly prepared, test temperatures out of target range, etc.) should note the event on the bench sheet and also notify the Laboratory Manager or Laboratory Director. A decision will be made by the Laboratory Manager or Laboratory Director as to whether to continue the test (with the appropriate qualifier) or whether to terminate the test. If the test is terminated, the client should be notified so that re-sampling and re-testing can be scheduled as soon as possible.

### **21.0 WASTE MANAGEMENT**

See 17.0 above.

### **22.0 REFERENCES**

The test procedure is based upon the guidelines outlined in EPA-821-R-02-013, *Short-term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Water to Freshwater*

*Organisms* (4<sup>th</sup> Ed.). Regional guidelines may require in slight modifications of the test protocol (e.g., solution renewals, test duration, target test temperature).

### **23.0 TABLES, DIAGRAMS, FLOW CHARTS, AND VALIDATION DATA**

Refer to Table 3 (pp. 164 of EPA-821-R-02-013) and the EPA Statistical Flow Chart (Figure 4 page 168 of EPA-821-R-02-013 and related discussions within that document.

### **24.0 TRAINING**

Laboratory analysts performing this procedure must receive instruction from a previously trained analyst. Individual parts of the overall procedure may be performed under the guidance of a previously-trained analyst.

To be qualified for the overall procedure outlined in this SOP, the analyst must:

- Read this SOP.

- Receive verbal and visual instruction.

- Achieve a daily neonate count that agrees ( $\pm 5\%$ ) with the count of an experienced analyst.

- Be trained on pertinent associated SOPs.

**Table 1. Test Protocol for Ceriodaphnia dubia survival and reproduction test**

ASSOCIATED PROTOCOL: EPA 2002. *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.* (EPA-821-R-02-013), Method 1002.0

1. Test type:	Static, daily renewal
2. Test temperature:	25 ± 1°C
3. Light quality:	Ambient laboratory illumination
4. Photoperiod:	16 hr. light, 8 hr. dark
5. Test chamber size:	30 ml
6. Test solution volume:	15 - 25 ml / replicate
7. Renewal of test concentrations:	Daily using most recent samples collected
8. Age of test organisms:	Less than 24 h (released within 8-h period)
9. No. organisms / test chamber:	1
10. No. of replicate chambers / concentration:	10
11. No. of organisms / concentration:	10
12. Feeding regime:	Feed 0.1 ml of YTC and algal suspension daily
13. Cleaning:	None, new color-coded cups daily with renewal
14. Aeration:	None
15. Dilution water:	Receiving water or laboratory water
16. Test concentrations:	6.25, 12.5, 25, 50, 100% (unless specified otherwise by permit)
17. Laboratory control:	Reconstituted water (soft, or moderately hard) or culture water
18. Test duration:	6 – 8 days
19. Monitoring:	Daily: temperature, DO, pH, and conductivity before and after renewal. Hardness, alkalinity on each new sample. Biological monitoring (survival and neonate counts) daily
19. End points:	Survival and reproduction
20. Reference toxicant test:	Sodium chloride 48-h LC50 and IC25
21. Test acceptability (Control performance):	80% or greater survival and an average of 15 neonates per surviving female. 60% of the control organisms must have produced three broods.
22. Data interpretation:	C-NOEC and IC25 (if client or permit requires) using Toxis2 statistical software.



## **APPENDIX 2**

### **Laboratory Reports**

Columbia Analytical Services, Inc.  
O'Brien & Gere, Inc.

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483C

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Date Sampled : 08/07/06 11:00                      Order #: 923277                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
AMMONIA	350.1	0.0500	0.567	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	152	MG/L	08/10/06	21:43	40.0
TOTAL ALKALINITY	310.1	2.00	277	MG/L	08/15/06	09:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	6.99	MG/L	08/12/06	00:56	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0796	MG/L	08/14/06	14:56	1.0
TOTAL SOLIDS	160.3	10.0	554	MG/L	08/11/06	14:15	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	2.60	MG/L	08/09/06	13:30	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7482R

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Date Sampled : 08/07/06 08:15      Order #: 923275      Sample Matrix: WATER  
Date Received: 08/08/06      Submission #: R2632759

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
AMMONIA	350.1	0.0500	0.0500 U	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	18.2	MG/L	08/10/06	21:26	10.0
TOTAL ALKALINITY	310.1	2.00	105	MG/L	08/15/06	09:30	1.0
TOTAL ORGANIC CARBON	9060	1.00	6.66	MG/L	08/12/06	00:18	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	08/14/06	14:56	1.0
TOTAL SOLIDS	160.3	10.0	159	MG/L	08/11/06	14:15	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	2.70	MG/L	08/09/06	13:30	1.0



**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483CTM

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Date Sampled : 08/07/06 11:00      Order #: 923286      Sample Matrix: WATER  
Date Received: 08/08/06      Submission #: R2632759

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/14/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
CALCIUM	200.7	1.00	68.6	MG/L	08/14/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
MAGNESIUM	200.7	1.00	28.5	MG/L	08/14/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/14/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0

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COLUMBIA ANALYTICAL SERVICES

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7483CCN

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Date Sampled : 08/07/06 11:00                      Order #: 923289                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0279	MG/L	08/17/06	14:35	1.0

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**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7482RCN

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Date Sampled : 08/07/06 08:15                      Order #: 923288                      Sample Matrix: WATER  
Date Received: 08/08/06                      Submission #: R2632759

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0100 U	MG/L	08/15/06	14:57	1.0

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**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric

Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06

Client Sample ID : A7483CDM

Date Sampled : 08/07/06 11:00

Order #: 923282

Sample Matrix: WATER

Date Received: 08/08/06

Submission #: R2632759

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/14/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/14/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
ZINC	200.7	0.0200	0.0252	MG/L	08/14/06	1.0

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/18/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7482RTM

Date Sampled : 08/07/06 08:15  
Date Received: 08/08/06

Order #: 923287  
Submission #: R2632759

Sample Matrix: WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/14/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
CALCIUM	200.7	1.00	27.4	MG/L	08/14/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/14/06	1.0
MAGNESIUM	200.7	1.00	9.59	MG/L	08/14/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/14/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/14/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/14/06	1.0

NPDES Sampling  
GE Pittsfield  
Toxicity pH

Date: 8/7/06

Split Sample  
A.TOX / C.TOX # 1  
AUG. 2006

Acute Dry   
Acute Wet   
Chronic  (Day 1,2 or 3)

Effluent Composite  
Sample # A7483C  
Date 8-7-06  
Time 11:00 AM  
pH 7.77 su

River/Dilution Water  
Sample # A7482R  
Date 8-7-06  
Time 8:15 AM  
pH 7.92 su

Mark Wasnowsky 8-7-06  
Signed & Dated

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7485C

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Date Sampled : 08/09/06 11:00                      Order #: 923292                      Sample Matrix: WATER  
Date Received: 08/10/06                      Submission #: R2632760

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.531	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	191	MG/L	08/11/06	17:41	40.0
TOTAL ALKALINITY	310.1	2.00	357	MG/L	08/17/06		1.0
TOTAL ORGANIC CARBON	9060	1.00	6.57	MG/L	08/12/06	02:12	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	08/14/06	14:56	1.0
TOTAL SOLIDS	160.3	10.0	683	MG/L	08/11/06	14:15	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	1.00 U	MG/L	08/11/06	16:20	1.0

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COLUMBIA ANALYTICAL SERVICES

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7484R

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Date Sampled : 08/09/06 08:15                      Order #: 923291                      Sample Matrix: WATER  
Date Received: 08/10/06                      Submission #: R2632760

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ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.179	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	13.2	MG/L	08/11/06	17:24	10.0
TOTAL ALKALINITY	310.1	2.00	73.3	MG/L	08/17/06		1.0
TOTAL ORGANIC CARBON	9060	1.00	6.03	MG/L	08/12/06	01:34	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	08/14/06	14:56	1.0
TOTAL SOLIDS	160.3	10.0	122	MG/L	08/11/06	14:15	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	2.20	MG/L	08/11/06	16:20	1.0

---



COLUMBIA ANALYTICAL SERVICES

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7485CCN

---

Date Sampled : 08/09/06 11:00                      Order #: 923300                      Sample Matrix: WATER  
Date Received: 08/10/06                      Submission #: R2632760

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0444	MG/L	08/15/06	14:57	1.0

---

COLUMBIA ANALYTICAL SERVICES

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7484RCN

---

Date Sampled : 08/09/06 08:15                      Order #: 923299                      Sample Matrix: WATER  
Date Received: 08/10/06                      Submission #: R2632760

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0100 U	MG/L	08/15/06	14:57	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7485CTM

Date Sampled : 08/09/06 11:00  
Date Received: 08/10/06

Order #: 923296  
Submission #: R2632760

Sample Matrix: WATER

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/16/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
CALCIUM	200.7	1.00	86.8	MG/L	08/16/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
MAGNESIUM	200.7	1.00	37.8	MG/L	08/16/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/16/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7485CDM

---

Date Sampled : 08/09/06 11:00                      Order #: 923293                      Sample Matrix: WATER  
Date Received: 08/10/06                      Submission #: R2632760

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/16/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/16/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0

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**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/17/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7484RTM

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Date Sampled : 08/09/06 08:15      Order #: 923297      Sample Matrix: WATER  
Date Received: 08/10/06      Submission #: R2632760

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/16/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
CALCIUM	200.7	1.00	20.7	MG/L	08/16/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
MAGNESIUM	200.7	1.00	7.31	MG/L	08/16/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/16/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0

NPDES Sampling  
GE Pittsfield  
Toxicity pH

Date: 8/9/06

Acute Dry     

Acute Wet     

Chronic 2 (Day 1,2 or 3)

Effluent Composite

Sample # A7485C

Date 8-9-06

Time 1100AM

pH 7.82 su

River/Dilution Water

Sample # A7484R

Date 8-9-06

Time 815AM

pH 7.17 su

Mark Wasniewsky 8-9-06  
Signed & Dated

COLUMBIA ANALYTICAL SERVICES

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7487C

---

Date Sampled : 08/11/06 11:00                      Order #: 923304                      Sample Matrix: WATER  
Date Received: 08/12/06                      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.523	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	196	MG/L	08/16/06	21:00	40.0
TOTAL ALKALINITY	310.1	2.00	366	MG/L	08/17/06	10:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	6.40	MG/L	08/17/06	20:35	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	08/21/06	15:26	1.0
TOTAL SOLIDS	160.3	10.0	694	MG/L	08/18/06	16:20	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	1.00 U	MG/L	08/15/06	15:50	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7486R

---

Date Sampled : 08/11/06 08:15                      Order #: 923303                      Sample Matrix: WATER  
Date Received: 08/12/06                      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
AMMONIA	350.1	0.0500	0.0500 U	MG/L	08/15/06	10:25	1.0
CHLORIDE	300.0	0.200	18.5	MG/L	08/15/06	12:15	10.0
TOTAL ALKALINITY	310.1	2.00	103	MG/L	08/17/06	10:00	1.0
TOTAL ORGANIC CARBON	9060	1.00	5.01	MG/L	08/17/06	18:41	1.0
TOTAL PHOSPHORUS	365.1	0.0500	0.0500 U	MG/L	08/21/06	15:26	1.0
TOTAL SOLIDS	160.3	10.0	147	MG/L	08/18/06	16:20	1.0
TOTAL SUSPENDED SOLIDS	160.2	1.00	1.00	MG/L	08/15/06	15:50	1.0

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COLUMBIA ANALYTICAL SERVICES

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7487CCN

---

Date Sampled : 08/11/06 11:00                      Order #: 923310                      Sample Matrix: WATER  
Date Received: 08/12/06                      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
TOTAL CYANIDE	335.4	0.0100	0.0197	MG/L	08/17/06	14:35	1.0

---

COLUMBIA ANALYTICAL SERVICES

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7486RCN

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Date Sampled : 08/11/06 08:15                      Order #: 923309                      Sample Matrix: WATER  
Date Received: 08/12/06                      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE	TIME	DILUTION
					ANALYZED	ANALYZED	
TOTAL CYANIDE	335.4	0.0100	0.0100 U	MG/L	08/15/06	14:57	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7487CTM

---

Date Sampled : 08/11/06 11:00                      Order #: 923307                      Sample Matrix: WATER  
Date Received: 08/12/06                      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/16/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
CALCIUM	200.7	1.00	87.2	MG/L	08/16/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
MAGNESIUM	200.7	1.00	37.4	MG/L	08/16/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/16/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0

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COLUMBIA ANALYTICAL SERVICES

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7487CDM

---

Date Sampled : 08/11/06 11:00      Order #: 923305      Sample Matrix: WATER  
Date Received: 08/12/06      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/16/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/16/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0

---

**COLUMBIA ANALYTICAL SERVICES**

Reported: 08/22/06

General Electric  
Project Reference: GE-PITTSFIELD BIOMONITORING - 8/06  
Client Sample ID : A7486RTM

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Date Sampled : 08/11/06 08:15                      Order #: 923308                      Sample Matrix: WATER  
Date Received: 08/12/06                      Submission #: R2632762

---

ANALYTE	METHOD	PQL	RESULT	UNITS	DATE ANALYZED	DILUTION
ALUMINUM	200.7	0.100	0.100 U	MG/L	08/16/06	1.0
CADMIUM	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
CALCIUM	200.7	1.00	27.8	MG/L	08/16/06	1.0
CHROMIUM	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
COPPER	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0
LEAD	200.7	0.00500	0.00500 U	MG/L	08/16/06	1.0
MAGNESIUM	200.7	1.00	10.2	MG/L	08/16/06	1.0
NICKEL	200.7	0.0400	0.0400 U	MG/L	08/16/06	1.0
SILVER	200.7	0.0100	0.0100 U	MG/L	08/16/06	1.0
ZINC	200.7	0.0200	0.0200 U	MG/L	08/16/06	1.0

NPDES Sampling  
GE Pittsfield  
Toxicity pH

Date: 8/11/06

Acute Dry

Acute Wet

Chronic 3 (Day 1,2 or 3)

Effluent Composite

Sample # A7487C

Date 8-11-06

Time 1100AM

pH 7.85 su

River/Dilution Water

Sample # A7486R

Date 8-11-06

Time 8:5AM

pH 7.79 su

Mark Wasnowsky 8-11-06  
Signed & Dated

## **APPENDIX 3**

### **Chain of Custody Forms**



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-895-7222 x11 • FAX (585) 288-8475 PAGE OF

SR # \_\_\_\_\_  
CAS Contact \_\_\_\_\_

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager		Report CC		PRESERVATIVE	
Company/Address		Company/Address		PRELIMINARY ANALYSIS	
Client Sample ID		FOR OFFICE USE ONLY		NUMBER OF CONTAINERS	
LAB ID		LAB ID		NUMBER OF CONTAINERS	
SAMPLING DATE		SAMPLING TIME		MATRIX	
NPDES PERMIT		159 PLASTICS AVE BLDG 59			
J. NICHOLSON		PITTSFIELD MA 01201			
GE CEP		Phone # (413) 448-5915			
		FAX# (413) 448-5935			
		Sampler's Printed Name SEAN COOLE			
		Sampler's Signature <i>E. Coyle</i>			
09C-A7470	8-3-06 11:20 AM	8-7-06 7:00 AM	8:20 AM	1	H3O
64T-A7492			8:00 AM		
64G-A7495			10:45 AM		
09C-A7497			10:45 AM		
09B-A7499			11:00 AM		
09B-A7499			11:00 AM		
005-A7501/A7502			8:50 AM		
005-A7501/A7502			11:00 AM		
A7482RCK	9-2-06	9-2-06	11:00 AM		
A7483CCN	9-2-06	9-2-06	11:00 AM		

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals - SAMPLES PACKED IN ICE		RUSH (SURCHARGES APPLY)		I. Results Only		PO#	
		24 hr <input type="checkbox"/> 48 hr <input checked="" type="checkbox"/> 5 day <input type="checkbox"/>		II. Results + QC Summaries (LCS, DUP, MS/MSD as required)		BILL TO:	
		STANDARD		III. Results + QC and Calibration Summaries			
REQUESTED FAX DATE		REQUESTED REPORT DATE		IV. Data Validation Report with Raw Data		SUBMISSION # <u>22672759</u>	
				V. Specialized Forms / Custom Report		RECEIVED BY	
CUSTODY SEALS: Y N		RECEIVED BY		RELINQUISHED BY		Signature	
RELINQUISHED BY		Signature		Signature		Printed Name	
RELINQUISHED BY		Printed Name		Printed Name		Firm	
RELINQUISHED BY		Firm		Firm		Date/Time	
RELINQUISHED BY		Date/Time		Date/Time		Date/Time	







# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE OF

SF # \_\_\_\_\_  
CAS Contact \_\_\_\_\_

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	NUMBER OF CONTAINERS	MATRIX	SAMPLING DATE	SAMPLING TIME	DATE	LAB ID	CLIENT SAMPLE ID	FOR OFFICE USE ONLY	SAMPLER'S PRINTED NAME	SAMPLER'S SIGNATURE	PHONE #	FAX #	COMPANY/ADDRESS	PROJECT MESSAGE	PROJECT LEADER	PROJECT NUMBER	REPORT CC	PRESERVATIVE	PRELIMINARY RESULTS	REMARKS/ ALTERNATE DESCRIPTION			
APDES Permit		923275		METALS, TOTAL (List in comments below)																							METALS, DISSOLVED (List in comments below)		METALS, TOTAL (List in comments below)
J. Nicholson		413 448 5913		33		33		8/1/06		8:15 AM		A7482R		923275		MARK WASNETWICKY		413 448 5913		GE Corp Environmental		157 Plastics Ave Bldg 59		Pittsfield MA 01201		None			
A7483C		923277		1		1		11:00 AM		8/1/06		A7482R		923275		MARK WASNETWICKY		413 448 5913		GE Corp Environmental		157 Plastics Ave Bldg 59		Pittsfield MA 01201		None			
A7483C		923277		3		3		11:00 AM		8:15 AM		A7483C		923277		MARK WASNETWICKY		413 448 5913		GE Corp Environmental		157 Plastics Ave Bldg 59		Pittsfield MA 01201		None			

**SPECIAL INSTRUCTIONS/COMMENTS**  
Metals  
3 Samples Packed in 1 ea

See QAPP

**TURNAROUND REQUIREMENTS**  
RUSH (SURCHARGES APPLY):  24 hr  48 hr  5 day  
STANDARD  
REQUESTED FAX DATE \_\_\_\_\_  
REQUESTED REPORT DATE \_\_\_\_\_

**REPORT REQUIREMENTS**  
i. Results Only \_\_\_\_\_  
ii. Results + QC Summaries (LCS, DUP, MS/MSD as required) \_\_\_\_\_  
iii. Results + QC and Calibration Submittals \_\_\_\_\_  
iv. Data Validation Report with Raw Data  \_\_\_\_\_  
v. Specialized Forms / Custom Report \_\_\_\_\_  
Edata Yes \_\_\_\_\_ No \_\_\_\_\_

**INVOICE INFORMATION**  
PO# \_\_\_\_\_  
BILL TO \_\_\_\_\_  
SUBMISSION #: R2632259  
RECEIVED BY \_\_\_\_\_

**RECEIVED BY** \_\_\_\_\_  
**SIGNATURE** \_\_\_\_\_  
**PRINTED NAME** \_\_\_\_\_  
**FIRM** \_\_\_\_\_  
**DATE/TIME** \_\_\_\_\_

**RECEIVED BY** \_\_\_\_\_  
**SIGNATURE** \_\_\_\_\_  
**PRINTED NAME** \_\_\_\_\_  
**FIRM** \_\_\_\_\_  
**DATE/TIME** \_\_\_\_\_

**RECEIVED BY** \_\_\_\_\_  
**SIGNATURE** \_\_\_\_\_  
**PRINTED NAME** \_\_\_\_\_  
**FIRM** \_\_\_\_\_  
**DATE/TIME** \_\_\_\_\_

**RECEIVED BY** \_\_\_\_\_  
**SIGNATURE** \_\_\_\_\_  
**PRINTED NAME** \_\_\_\_\_  
**FIRM** \_\_\_\_\_  
**DATE/TIME** \_\_\_\_\_

## Cooler Receipt And Preservation Check Form

Project/Client GE Submission Number \_\_\_\_\_

Cooler received on 8/8/06 by [Signature] COURIER: CAS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
  2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
  3. Did all bottles arrive in good condition (unbroken)? YES NO N/A
  4. Did any VOA vials have significant air bubbles? YES NO
  5. Were Ice or Ice packs present? CAS/ROS, CLIENT
  6. Where did the bottles originate? \_\_\_\_\_
  7. Temperature of cooler(s) upon receipt: 3.1 3.8 \_\_\_\_\_
- Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes  
 If No, Explain Below No No No No No

Date/Time Temperatures Taken: 8/8/06 9:50  
 Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_  
 PC Secondary Review: [Signature] 8-8-06

- Cooler Breakdown: Date: \_\_\_\_\_ by: \_\_\_\_\_
1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
  2. Did all bottle labels and tags agree with custody papers? YES NO
  3. Were correct containers used for the tests indicated? YES NO
  4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A
- Explain any discrepancies: \_\_\_\_\_

		YES	NO	Sample I.D.	Reagent	Vol. Added	Final pH
pH	Reagent						
12	NaOH						
2	HNO <sub>3</sub>						
2	H <sub>2</sub> SO <sub>4</sub>						
Residual Chlorine (+/-)	for TCN & Phenol						
5-9**	P/PCBs (608 only)						

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH \_\_\_\_\_  
 \*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments: \_\_\_\_\_

PC Secondary Review: \_\_\_\_\_

8/7/2006

CHRONIC AQUATIC TOXICITY COMPOSITE 8C1

Split Sample  
C. TOX 1 +  
AW TOX Aug.  
2006

Month: AUG  
Week: 2  
Fiscal Wk: 32  
Weather: Chronic Composite Sample #1

	Gallons/Day	MI in Composite	Percent of Composite
001	84,010	4,508.41	30.06%
004	0	-	0.00%
007	0	-	0.00%
64T	31,530	1,692.06	11.28%
64G	151,180	8,113.10	54.09%
09A	0	-	0.00%
09B	12,791	686.43	4.58%
	279,511	15000	100.00%

The Chronic Toxicity Composite was made today by Mark Wbsnewsky @ 11<sup>00</sup> AM  
according to the table above, and given the sample ID# A7483C

Chain-of-Custody Form Number:	<u>086080706</u>
Analysis:	<u>Split Sample AUG</u>
Location:	<u>A. TOX / C. TOX 2006</u>
Time:	<u>11<sup>00</sup> AM</u>
Date:	<u>8-7-06</u>
Sample Label Serial Number	<u>A 7483C</u>

Mark Wbsnewsky  
Signed  
8-7-06  
Date

# Aquatec Biological Sciences

## Chain-of-Custody Record

275 Commerce Street  
 Williston, VT 05495  
 TEL: (802) 860-1638  
 FAX: (802) 858-3189

COMPANY INFORMATION		COMPANY'S PROJECT INFORMATION				SHIPPING INFORMATION		VOLUME/CONTAINER TYPE/ PRESERVATIVE																						
Name: General Electric Company Address: O'Brien & Gere 1000 East Street, Gate 64 City/State/Zip: Pittsfield, MA 01201 Telephone: (413) 494-6709 Facsimile: Contact Name: Mark Wasniewsky		Project Name: GE PITTSFIELD <b>Outfall Composite - INITIAL SAMPLE</b> Project Number: 06004 Sampler Name(s): <u>MARK WASNIEWSKY</u> NPDES Permit #: MA0003891 Ship these samples on Monday. Quote #: 10/05 Client Code: GEPITTS				Carrier: Airbill Number: <u>8-7-06</u> Date Shipped: Hand Delivered: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">4°C</th> <th style="width: 10%;">4°C</th> <th style="width: 10%;">4°C</th> <th style="width: 10%;">4°C</th> <th style="width: 10%;">4°C</th> <th style="width: 10%;">4°C</th> </tr> <tr> <td>Plastic</td> <td>Plastic</td> <td>4°C H<sub>2</sub>SO<sub>4</sub></td> <td>4°C H<sub>2</sub>SO<sub>4</sub></td> <td>4°C HNO<sub>3</sub></td> <td>4°C</td> </tr> <tr> <td>1 gal</td> <td>1/2 gal</td> <td>1 L</td> <td>40 ml</td> <td>250 ml</td> <td>0.5 L</td> </tr> </table>					4°C	4°C	4°C	4°C	4°C	4°C	Plastic	Plastic	4°C H <sub>2</sub> SO <sub>4</sub>	4°C H <sub>2</sub> SO <sub>4</sub>	4°C HNO <sub>3</sub>	4°C	1 gal	1/2 gal	1 L	40 ml	250 ml	0.5 L
4°C	4°C	4°C	4°C	4°C	4°C																									
Plastic	Plastic	4°C H <sub>2</sub> SO <sub>4</sub>	4°C H <sub>2</sub> SO <sub>4</sub>	4°C HNO <sub>3</sub>	4°C																									
1 gal	1/2 gal	1 L	40 ml	250 ml	0.5 L																									
SAMPLE IDENTIFICATION		COLLECTION DATE		TIME	GRAB	COMPOSITE	MATRIX	ANALYSIS																						
Outfall Composite		8-7-06		11 AM		✓	Effluent	Ceriodaphnia dubia chronic survival and reproduction (EPA Method 1002.0)																						
A7483C				8:00 AM		✓	Effluent	Initial sample																						
Outfall Composite A7483C				8:15 AM	✓		Receiving	Total Residual Chlorine																						
Housatonic River A7482R				8:15 AM	✓		Receiving	Dilution Water																						
Housatonic River A7482R				8:15 AM	✓		Receiving	Total Residual Chlorine																						
Relinquished by: (signature)		DATE		TIME	Received by: (signature)		NOTES TO SAMPLER(S): (1): Complete the labels (Date, time, initials) and cover the labels with clear tape. Tape the caps of the sample bottles to ensure that they do not become dislodged during shipment. Nest the samples in sufficient ice to maintain 0°C - 6°C. Results for samples received at temperatures exceeding 6°C will be qualified in the report.																							
<u>Mark Wasniewsky</u>		8-7-06		8:12	<u>[Signature]</u>		Notes to Lab: Ambient cooler temperature: <u>4.0</u> °C. Dechlorinate the effluent sample if chlorine is detected.																							
Relinquished by: (signature)		DATE		TIME	Received by: (signature)																									
<u>[Signature]</u>					<u>[Signature]</u>																									
Relinquished by: (signature)		DATE		TIME	Received by: (signature)																									
<u>[Signature]</u>					<u>[Signature]</u>																									



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR #

CAS Contact

Project Name		Project Number	ANALYSIS REQUESTED (Include Method Number and Container Preservative)		REMARKS/ ALTERNATE DESCRIPTION
Client Sample ID	FOR OFFICE USE ONLY	LAB ID	SAMPLING DATE	TIME	MATRIX
A7484RTM	923297	8-9-06	8:15 AM		H2O
A7485CTM	923296		11:00 AM		
A7485CDM	923293		11:00 AM		
A7484RCN	923299		8:15 AM		
A7485CCN	923300		11:00 AM		
A7485C	923292		11:00 AM		
A7484R	923291		8:15 AM		
A7485C	923292		11:00 AM		
A7484R	923291		8:15 AM		

PRESERVATIVE	NUMBER OF CONTAINERS	TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS	INVOICE INFORMATION
GCMS VOAs <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> CLP GCMS SVOAs <input type="checkbox"/> 8270 <input type="checkbox"/> 625 <input type="checkbox"/> CLP GC VOAs <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 PESTICIDES <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> CLP PCBs <input type="checkbox"/> 8082 <input type="checkbox"/> 608 <input type="checkbox"/> CLP METALS, TOTAL (List in comments below) <input type="checkbox"/> CLP METALS, DISSOLVED (List in comments below) <input type="checkbox"/> CLP CYANIDE EMAS5/4 TSS EPA 160.2 Alkalinity	METALS, TOTAL (List in comments below) <input checked="" type="checkbox"/> CLP METALS, DISSOLVED (List in comments below) <input checked="" type="checkbox"/> CLP GCMS VOAs <input checked="" type="checkbox"/> 8260 <input checked="" type="checkbox"/> 624 <input type="checkbox"/> CLP GCMS SVOAs <input checked="" type="checkbox"/> 8270 <input type="checkbox"/> 625 <input type="checkbox"/> CLP GC VOAs <input type="checkbox"/> 8021 <input type="checkbox"/> 601/602 PESTICIDES <input type="checkbox"/> 8081 <input type="checkbox"/> 608 <input type="checkbox"/> CLP PCBs <input type="checkbox"/> 8082 <input type="checkbox"/> 608 <input type="checkbox"/> CLP	RUSH (SURCHARGES APPLY) <input checked="" type="checkbox"/> 24 hr <input type="checkbox"/> 48 hr <input type="checkbox"/> 5 day STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE	<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MS/MSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input checked="" type="checkbox"/> IV. Data Validation Report with Raw Data <input type="checkbox"/> V. Specialized Forms / Custom Report Edita Yes No RECEIVED BY: 12032260	PO# BILL TO: SUBMISSION #: RECEIVED BY:

SPECIAL INSTRUCTIONS/COMMENTS: Metals List on sample bottle label. Samples Packed in Ice.

See OAPP  CUSTODY SEALS: Y N

SAMPLE RECEIPT, CONDITION/COOLER TEMP.	RECEIVED BY	RELINQUISHED BY
Signature: <i>Mark Waters</i> Printed Name: Mark Waters Firm: OBS Date/Time: 8-9-06 2:00 PM	Signature: <i>Gregory O. Smeytan</i> Printed Name: Gregory O. Smeytan Firm: CAS Date/Time: 8-10-06 9:20	Signature: Printed Name: Firm: Date/Time:



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR # \_\_\_\_\_ CAS Contact \_\_\_\_\_

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	NUMBER OF CONTAINERS	REMARKS/ ALTERNATE DESCRIPTION	
Project Manager		Report CC							
NPDES Permit		J. Nicholson		033					
Company/Address		GE CEP		TOTAL PHOSPHORUS					
159 Plastics Ave Bldg 59		Pittsfield MA 01201		TOTAL SOLIDS					
Phone #		413 448 5915		TOTAL CHLORIDE					
FAX#		413 448 5935		TRC					
Sample's Signature		Sample's Printed Name		METALS, DISSOLVED					
Mark Wasmerski		MARK WASMERWSKY		METALS, TOTAL					
FOR OFFICE USE ONLY		LAB ID		METALS, 608 CLP					
CLIENT SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	PCBs 8082 608 CLP					
A7485C	9-23-29	8:15 AM	H2O	PESTICIDES 8081 608 CLP					
A7484R	9-23-29	11:00 AM		GC VOAs 8021 601/602					
A7485C	9-23-29	8:15 AM		GC SVOAs 8270 625 CLP					
A7484R	9-23-29	11:00 AM		GCMS SVOAs 8260 624 CLP					
A7485C	9-23-29	8:15 AM							
A7484R	9-23-29	8:15 AM							
SPECIAL INSTRUCTIONS/COMMENTS		CUSTODY SEALS: Y N		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RELINQUISHED BY		RUSH (SURCHARGES APPLY)		I. Results Only		PO#	
Samples Packed in Ice		RELINQUISHED BY		24 hr 48 hr 5 day		II. Results + QC Summaries (LCS, DUP, MS/MSD as required)		BILL TO:	
		RELINQUISHED BY		STANDARD		III. Results + QC and Calibration Summaries			
		RELINQUISHED BY		REQUESTED FAX DATE		IV. Data Validation Report with Raw Data		SUBMISSION #	
		RELINQUISHED BY		REQUESTED REPORT DATE		V. Specialized Forms / Custom Report		1262210	
See OAPP <input type="checkbox"/>		RELINQUISHED BY				Edala Yes No		RECEIVED BY	
SAMPLE RECEIPT: CONDITION/COOLER TEMP:		RELINQUISHED BY		Signature		Signature		Signature	
RELINQUISHED BY		RELINQUISHED BY		Printed Name		Printed Name		Printed Name	
Mark Wasmerski		RELINQUISHED BY		Firm		Firm		Firm	
MARK WASMERWSKY		RELINQUISHED BY		Date/Time		Date/Time		Date/Time	
DOB		RELINQUISHED BY		Date/Time		Date/Time		Date/Time	
9-9-06 2:00 PM		RELINQUISHED BY		Date/Time		Date/Time		Date/Time	
8-10-06 9:30		RELINQUISHED BY		Date/Time		Date/Time		Date/Time	
CAS		RELINQUISHED BY		Date/Time		Date/Time		Date/Time	

**Cooler Receipt And Preservation Check Form**

Project/Client GE Pittsfield Submission Number R2-32760

Cooler received on 8-10-06 by: KZE COURIER: CAS UPS FEDEX VELOCITY CLIENT

- |    |  |                |               |
|----|--|----------------|---------------|
| 1. | Were custody seals on outside of cooler?                     | <u>YES</u>     | <u>NO</u>     |
| 2. | Were custody papers properly filled out (ink, signed, etc.)? | <u>YES</u>     | NO            |
| 3. | Did all bottles arrive in good condition (unbroken)?         | <u>YES</u>     | NO            |
| 4. | Did any VOA vials have significant air bubbles?              | <u>YES</u>     | NO            |
| 5. | Were <u>Ice</u> or Ice packs present?                        | <u>YES</u>     | NO            |
| 6. | Where did the bottles originate?                             | <u>CAS/ROC</u> | <u>CLIENT</u> |
| 7. | Temperature of cooler(s) upon receipt:                       | <u>4°</u>      |               |

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 8-10-06 @ 9:52

Thermometer ID: 161 or IR GUN Reading From: Temp Blank or Sample Bottle

**If out of Temperature, Client Approval to Run Samples**

PC Secondary Review: 8-10-06

Cooler Breakdown: Date: 8-10-06 by: KZE

- |    |  |                       |                                  |
|----|--|-----------------------|----------------------------------|
| 1. | Were all bottle labels complete (i.e. analysis, preservation, etc.)? | <u>YES</u>            | NO                               |
| 2. | Did all bottle labels and tags agree with custody papers?            | <u>YES</u>            | NO                               |
| 3. | Were correct containers used for the tests indicated?                | <u>YES</u>            | NO                               |
| 4. | Air Samples: Cassettes / Tubes Intact                                | Canisters Pressurized | Tedlar® Bags Inflated <u>N/A</u> |

Explain any discrepancies: \_\_\_\_\_

	YES	NO	Sample I.D.	Reagent	Vol. Added	Final pH
pH						
12	✓			NaOH		
2	✓			HNO <sub>3</sub>		
2	✓			H <sub>2</sub> SO <sub>4</sub>		
Residual Chlorine (+/-)				for TCN & Phenol		
5-9**				P/PCBs (608 only)		

YES = All samples OK      NO = Samples were preserved at lab as listed      PC OK to adjust pH \_\_\_\_\_

\*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:

PC Secondary Review: 8-11-06



8/9/06

CHRONIC AQUATIC TOXICITY COMPOSITE 8C2

Month: AUG  
Week: 2  
Fiscal Wk: 32  
Weather: Chronic Composite Sample #2

	Gallons/Day	MI in Composite	Percent of Composite
001	8,160	860.18	5.73%
004	0	-	0.00%
007	0	-	0.00%
64T	7,230	762.15	5.08%
64G	122,660	12,930.18	86.20%
09A	0	-	0.00%
09B	4,245	447.49	2.98%
	142,295	15000	100.00%

The Chronic Toxicity Composite was made today by Mark Wasniewsky 11<sup>00</sup> AM  
according to the table above, and given the sample ID# A7485C.

Chain-of-Custody Form Number:	<u>OBG080906</u>
Analysis:	<u>C. TOX 2 AUG 2006</u>
Location:	<u>1100AM</u> Date: <u>8-9-06</u>
Time	
Sample Label Serial Number	<u>A 7485C</u>

Mark Wasniewsky  
Signed  
8-9-06  
Date





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR # \_\_\_\_\_  
CAS Contact \_\_\_\_\_

Project Name <b>NPDES Permit</b>		Project Number		ANALYSIS REQUESTED (include Method Number and Container Preservative)		PRESERVATIVE	NUMBER OF CONTAINERS	PRELIMINARY RESULTS	REMARKS/ALTERNATE DESCRIPTION
Project Manager <b>J. Nicholson</b>	Report CC <b>GE CEP</b>	Client Sample ID	LAB ID	FOR OFFICE USE ONLY	SAMPLING DATE				
Company/Address <b>159 Plastics Ave Bldg 59 Pittsfield MA 01201</b>									
Phone # <b>413 448 5915</b>	FAX # <b>413 448 5935</b>								
Signatory <b>Mark Wasniewsky</b>									
Sampler's Printed Name <b>MARK WASNIEWSKY</b>									
CLIENT SAMPLE ID									
A7486RTM		923308	923307		8-11-06	8:15 AM	H <sub>2</sub> O		
A7487CTM		923305	923309		11:00 AM	8:15 AM			
A7487CDM		923309	923310		11:00 AM	8:15 AM			
A7486RCN		923310	923303		11:00 AM	8:15 AM			
A7487CCN		923303	923304		11:00 AM	8:15 AM			
A7486R		923304	923303		11:00 AM	8:15 AM			
A7487C		923303	923304		11:00 AM	8:15 AM			
A7486R		923304	923304		11:00 AM	8:15 AM			
A7487C		923304	923304		11:00 AM	8:15 AM			

SPECIAL INSTRUCTIONS/COMMENTS	TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS	INVOICE INFORMATION
<b>Metals</b> Listed on sample labels Samples packed in ice	RUSH (SURCHARGES APPLY) <input type="checkbox"/> 24 hr <input type="checkbox"/> 48 hr <input checked="" type="checkbox"/> 5 day STANDARD REQUESTED FAX DATE _____ REQUESTED REPORT DATE _____	<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + CC Summaries (LCS, DUP, MS/MSD as required) <input type="checkbox"/> III. Results + CC and Calibration Summaries <input checked="" type="checkbox"/> IV. Data Validation Report with Raw Data <input type="checkbox"/> V. Specialized Forms / Custom Report Ectda Yes <input type="checkbox"/> No <input type="checkbox"/>	PO# _____ BILL TO: _____ SUBMISSION # <b>12632262</b> RECEIVED BY _____

RECEIVED BY	RECEIVED BY	RECEIVED BY	RECEIVED BY
<b>Mark Wasniewsky</b> Signature <b>MARK WASNIEWSKY</b> Printed Name <b>DRS</b> Firm <b>8-11-06 2:00 PM</b> Date/Time	<b>Mark Wasniewsky</b> Signature <b>Mark Wasniewsky</b> Printed Name <b>Heather Lavigne</b> Firm <b>CAS</b> Date/Time <b>8/16/06 10:15</b>	Signature _____ Printed Name _____ Firm _____ Date/Time _____	Signature _____ Printed Name _____ Firm _____ Date/Time _____



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR #

CAS Contact

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	NUMBER OF CONTAINERS	REMARKS/ALTERNATE DESCRIPTION
Client Sample ID	FOR OFFICE USE ONLY	LAB ID	SAMPLING DATE	TIME	MATRIX			
A7486R	923307	923307	8-11-06	8:15 AM	H2O		3	
A7487C	923307	923307	8-11-06	8:15 AM	H2O		3	
A7486R	923307	923307	8-11-06	8:15 AM	H2O		1	
A7487C	923307	923307	8-11-06	8:15 AM	H2O		1	
A7486R	923307	923307	8-11-06	8:15 AM	H2O		1	
A7487C	923307	923307	8-11-06	8:15 AM	H2O		1	

SPECIAL INSTRUCTIONS/COMMENTS	TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS	INVOICE INFORMATION
<b>Metals</b> Samples packed in ice	RUSH (SURCHARGES APPLY) <input type="checkbox"/> 24 hr <input type="checkbox"/> 48 hr <input checked="" type="checkbox"/> 5 day STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE	<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MS/MSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input checked="" type="checkbox"/> IV. Data Validation Report with Raw Data <input type="checkbox"/> V. Specialized Forms / Custom Report Edit(s) Yes <input type="checkbox"/> No <input type="checkbox"/>	PO# BILL TO: SUBMISSION #: RECEIVED BY:

SAMPLE RECEIPT: CONDITION/COOLER TEMP	RECEIVED BY	RELINQUISHED BY	CUSTODY SEALS: Y N
8-11-06 2:00 PM	Signature: <i>Mark Witsenski</i> Printed Name: <b>MARK WITSENSKI</b> Firm: <b>OBS</b> Date/Time: 8-11-06 2:00 PM	Signature: <i>Mark Witsenski</i> Printed Name: <b>MARK WITSENSKI</b> Firm: <b>OBS</b> Date/Time: 8-11-06 2:00 PM	RECEIVED BY: <i>Mark Witsenski</i> RELINQUISHED BY: <i>Mark Witsenski</i> RECEIVED BY: <i>Mark Witsenski</i> RELINQUISHED BY: <i>Mark Witsenski</i>

## Cooler Receipt And Preservation Check Form

Project/Client GE Submission Number \_\_\_\_\_

Cooler received on 8/12/06 by: [Signature] COURIER: CAS UPS **FEDEX** VELOCITY CLIENT

- |    |  |                        |    |            |
|----|--|------------------------|----|------------|
| 1. | Were custody seals on outside of cooler?                     | <b>YES</b>             | NO |            |
| 2. | Were custody papers properly filled out (ink, signed, etc.)? | <b>YES</b>             | NO |            |
| 3. | Did all bottles arrive in good condition (unbroken)?         | <b>YES</b>             | NO |            |
| 4. | Did any VOA vials have significant air bubbles?              | YES                    | NO | <b>N/A</b> |
| 5. | Were Ice or Ice packs present?                               | <b>YES</b>             | NO |            |
| 6. | Where did the bottles originate?                             | <b>CAS/ROC, CLIENT</b> |    |            |
| 7. | Temperature of cooler(s) upon receipt:                       | <u>4.1</u>             |    |            |

Is the temperature within 0° - 6° C?: **Yes** Yes Yes Yes Yes  
 If No, Explain Below No No No No No

Date/Time Temperatures Taken: 8/12/06 1040  
 Thermometer ID: 161 or **IR GUN** Reading From: Temp Blank or **Sample Bottle**

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_  
 PC Secondary Review: [Signature]

Cooler Breakdown: Date: \_\_\_\_\_ by: \_\_\_\_\_

- |    |  |                       |                       |     |
|----|--|-----------------------|-----------------------|-----|
| 1. | Were all bottle labels complete (i.e. analysis, preservation, etc.)? | YES                   | NO                    |     |
| 2. | Did all bottle labels and tags agree with custody papers?            | YES                   | NO                    |     |
| 3. | Were correct containers used for the tests indicated?                | YES                   | NO                    |     |
| 4. | Air Samples: Cassettes / Tubes Intact                                | Canisters Pressurized | Tedlar® Bags Inflated | N/A |

Explain any discrepancies: \_\_\_\_\_

		YES	NO	Sample I.D.	Reagent	Vol. Added	Final pH
pH	Reagent						
12	NaOH						
2	HNO <sub>3</sub>						
2	H <sub>2</sub> SO <sub>4</sub>						
Residual Chlorine (+/-)	for TCN & Phenol						
5.9**	P/PCBs (608 only)						

YES = All samples OK      NO = Samples were preserved at lab as listed      PC OK to adjust pH \_\_\_\_\_  
 \*\*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments: \_\_\_\_\_

PC Secondary Review: \_\_\_\_\_

8/11/2006

CHRONIC AQUATIC TOXICITY COMPOSITE 8C3

Month: AUG  
Week: 2  
Fiscal Wk: 32  
Weather: Chronic Composite Sample #3

	Gallons/Day	Ml in Composite	Percent of Composite
001	7,750	941.02	6.27%
004	0	-	0.00%
007	0	-	0.00%
64T	7,820	949.52	6.33%
64G	107,930	13,105.09	87.37%
09A	0	-	0.00%
09B	36	4.37	0.03%
	123,536	15000	100.00%

The Chronic Toxicity Composite was made today by Mark Wasniewsky @ 11<sup>00</sup> AM  
according to the table above, and given the sample ID# A7487C.

Chain-of-Custody Form Number:	<u>OBG081104</u>
Analysis:	<u>C-TOX 3 AUG 2006</u>
Location:	<u>11<sup>00</sup> AM</u>
Date:	<u>8-11-06</u>
Time:	<u>A 7487C</u>
Sample Label Serial Number	

Mark Wasniewsky  
Signed  
8-11-06  
Date

