Sevenson Environmental Services, Inc.

JE JACOBS

**US ARMY CORPS OF ENGINEERS**
**NEW ENGLAND DISTRICT**
Total Environmental Restoration Contract
USACE Contract Number: DACW33-03-D-0006
Task Order No. 0006

# 2007 DREDGE SEASON DATA SUBMITTAL
# NEW BEDFORD HARBOR
# REMEDIAL ACTION

New Bedford Harbor Superfund Site
New Bedford, MA

January 2008

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ACE-J23-35BG0602-M17-0001

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## DATA SUBMITTAL SUMMARY

The purpose of this 2007 Dredge Season Data Submittal is to provide documentation regarding key activities from the New Bedford Harbor Superfund Site 2007 field season. As directed by the U.S. Environmental Protection Agency (EPA) this submittal, similar to the 2006 Dredge Season Data Submittal, does not contain a text summary section; information is summarized in tabular or graphic format.

The following bullets will explain the significance or intended use of the various tables, figures and attachments that comprise the 2007 Dredge Season Data Submittal.

**Tables 1 and 2** analyze the post dredge bathymetric survey data to quantify the dredge control.

**Attachment A** is composed of 21 figures; the figures are more easily described individually rather than as one attachment.

- Figure A-1 illustrates the dredge areas proposed for dredging in the Addendum No. 3 to Execution Plan, New Bedford Harbor Remedial Action. The actual dredge area was modified prior to the commencement of dredging activities.
- Figure A-2 depicts the areas dredged during the 2004-2007 field seasons; bathymetry is provided only for areas actually dredged.
- Figures A-3 and A-4 show the Area G and Area H dredge areas, respectively, as proposed for the 2007 field season. The actual dredge areas differed slightly from those pictured due to revisions.
- Figure A-5 shows the pipeline and booster pump locations from the dredge areas to the Area C desanding plant.
- Figures A-6 through A-9 detail the final dredge areas, quantity of sediment targeted for removal, the target elevations and the "rod readings". The rod readings are a tool the dredge engineer used to check the dredge elevation using a shore-based laser reference station.
- Figures A-10 through A-14 are selected copies of daily dredge progress figures. The progress figure documents the daily dredging activities; the figure is based on GPS dredge tracking and dredge operator's cut sheets.
- Figures A-15 and A-16 are examples of periodic sediment elevation checks by Jacobs. The elevation checks are performed via rod and plate with GPS.

- Figure A-17 compares actual post dredge sediment elevations to target sediment elevations in Area G.
- Figure A-18 graphically depicts Area G post dredge bathymetry.
- Figure A-19 compares actual post dredge sediment elevations to target sediment elevations in Area H.
- Figure A-20 graphically depicts Area H post dredge bathymetry.

**Attachment B** is a brief description of major events associated with the 2007 field season, arranged chronologically by activity type.

**Attachment C** is a collection of analytical data from the 2007 field season. The seven tables characterize the various process waste or treatment streams.

**Attachment D** is a record of transportation and disposal activities for materials generated or disposed of during the 2007 field season. Copies of manifests and Certificates of Disposal are maintained in the project file.

**Attachment E** is a table of airborne PCB data which was collected during the 2007 field season to evaluate worker exposure.

**Attachment F** is a summary of PCB air sampling events and the associated Personal Exposure Tracking System (PETS) Curves.

**Attachment G** contains the mass balance tabulations and calculations. The data is based on actual quantities as well as calculated quantities and provides a way to account for process inputs process outputs. PCB mass removed calculations are also provided in Attachment G. This calculation utilizes production quantities and analytical data to estimate the mass of PCBs contained in the various solid waste streams generated during the 2007 field season. PCB mass removed tables for 2004 through 2006 are included for comparison.

**Attachment H** is a copy of the final "Sevenson Operational Monitoring Data Report". This table was updated and distributed daily by Sevenson during the 2007 field season to track and illustrate progress.

**Attachment I** is a summarization of data collected for the purpose of process improvement. A project note summarizing 2007 iron testing activities conducted during the 2007 field season is attached. The iron testing was conducted to evaluate the ferric dosing regimen. Air Filtration Sampling Data for 2007 is included in the process improvement attachment as well; this data was used to evaluate the effectiveness of the air filtration equipment during the 2007 field season.

**Attachment J** is a summary of lessons learned and conclusions reached during the 2007 field season for the purpose of future process improvement.

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# TABLES

**Table 1**
**Area G Dredge Plan Compliance Review**
**New Bedford Harbor Superfund Site - 2007 Season**

**Under-Dredged Z Blocks**

| Cell | Dredged Elevation | Target Elevation | Under-Dredge Tolerence Elevation | Difference from Tolerence Elevation | $ft^2$ of Z-Block | $ft^3$ of Material | $yd^3$ of Material |
|---|---|---|---|---|---|---|---|
| M5 | -1.4 | -2.0 | -1.5 | 0.1 | 625 | 62.5 | 2.3 |
| I11 | -2.0 | -2.6 | -2.1 | 0.1 | 625 | 62.5 | 2.3 |
| J18 | -2.7 | -3.3 | -2.8 | 0.1 | 625 | 62.5 | 2.3 |
| J19 | -3.0 | -3.6 | -3.1 | 0.1 | 625 | 62.5 | 2.3 |
| K19 | -2.8 | -3.4 | -2.9 | 0.1 | 625 | 62.5 | 2.3 |
| M19 | -3.0 | -3.7 | -3.2 | 0.2 | 625 | 125 | 4.6 |
| K20 | -3.0 | -4.0 | -3.5 | 0.5 | 625 | 312.5 | 11.6 |
| J21 | -3.9 | -5.0 | -4.5 | 0.6 | 625 | 375 | 13.9 |
| K21 | -3.5 | -4.4 | -3.9 | 0.4 | 625 | 250 | 9.3 |
| | | | | | Total | 1375 | 51 |

| | |
|---|---|
| Total Volume Removed from Area G (Bathymetric Survey) | 5,539 |
| Volume of Material Under-Dredged | 51 |
| Under-Dredged Percent of Total Dredged Volume | 0.9% |

| | |
|---|---|
| Dredge Plan Volume for the Same Area | 6,037 |
| **Under-Dredged Percent of Dredge Plan Volume** | 0.8% |

Note:
Elevations are referenced to NGVD 29 - ft
Volumes in cubic yards unless otherwise noted
$ft^2$ = square feet
$ft^3$ = cubic feet
$yd^3$ = cubic yards

**Over-Dredged Z Blocks**

| Cell | Dredged Elevation | Target Elevation | Over-Dredge Tolerence Elevation | Difference from Tolerence Elevation | $ft^2$ of Z-Block | $ft^3$ of Material | $yd^3$ of Material |
|---|---|---|---|---|---|---|---|
| L1 | -2.4 | -1.6 | -2.1 | 0.3 | 625 | 187.5 | 6.9 |
| N1 | -2.6 | -1.6 | -2.1 | 0.5 | 625 | 312.5 | 11.6 |
| O1 | -2.1 | -1.4 | -1.9 | 0.2 | 625 | 125 | 4.6 |
| P1 | -2.4 | -1.4 | -1.9 | 0.5 | 625 | 312.5 | 11.6 |
| Q1 | -2.0 | -1.4 | -1.9 | 0.1 | 625 | 62.5 | 2.3 |
| L2 | -2.3 | -1.6 | -2.1 | 0.2 | 625 | 125 | 4.6 |
| M2 | -2.2 | -1.5 | -2.0 | 0.2 | 625 | 125 | 4.6 |
| N2 | -2.6 | -1.5 | -2.0 | 0.6 | 625 | 375 | 13.9 |
| O2 | -2.6 | -1.5 | -2.0 | 0.6 | 625 | 375 | 13.9 |
| P2 | -2.3 | -1.3 | -1.8 | 0.5 | 625 | 312.5 | 11.6 |
| Q2 | -2.2 | -1.3 | -1.8 | 0.4 | 625 | 250 | 9.3 |
| J3 | -2.3 | -1.7 | -2.2 | 0.1 | 625 | 62.5 | 2.3 |
| N3 | -2.8 | -1.6 | -2.1 | 0.7 | 625 | 437.5 | 16.2 |
| O3 | -2.3 | -1.7 | -2.2 | 0.1 | 625 | 62.5 | 2.3 |
| J4 | -2.1 | -1.5 | -2.0 | 0.1 | 625 | 62.5 | 2.3 |
| K4 | -2.1 | -1.5 | -2.0 | 0.1 | 625 | 62.5 | 2.3 |
| N4 | -2.8 | -1.7 | -2.2 | 0.6 | 625 | 375 | 13.9 |
| N5 | -2.8 | -1.8 | -2.3 | 0.5 | 625 | 312.5 | 11.6 |
| N6 | -2.6 | -1.8 | -2.3 | 0.3 | 625 | 187.5 | 6.9 |
| O6 | -2.4 | -1.8 | -2.3 | 0.1 | 625 | 62.5 | 2.3 |
| N7 | -2.6 | -1.9 | -2.4 | 0.2 | 625 | 125 | 4.6 |
| O7 | -2.8 | -2.0 | -2.5 | 0.3 | 625 | 187.5 | 6.9 |
| Q7 | -2.7 | -2.0 | -2.5 | 0.2 | 625 | 125 | 4.6 |
| K8 | -2.7 | -1.9 | -2.4 | 0.3 | 625 | 187.5 | 6.9 |
| K9 | -2.6 | -2.0 | -2.5 | 0.1 | 625 | 62.5 | 2.3 |
| M9 | -2.6 | -2.0 | -2.5 | 0.1 | 625 | 62.5 | 2.3 |
| M10 | -2.6 | -2.0 | -2.5 | 0.1 | 625 | 62.5 | 2.3 |
| N10 | -2.7 | -2.0 | -2.5 | 0.2 | 625 | 125 | 4.6 |
| O10 | -2.8 | -2.1 | -2.6 | 0.2 | 625 | 125 | 4.6 |
| Q10 | -2.6 | -2.0 | -2.5 | 0.1 | 625 | 62.5 | 2.3 |
| N11 | -3.2 | -2.0 | -2.5 | 0.7 | 625 | 437.5 | 16.2 |
| O11 | -2.9 | -2.0 | -2.5 | 0.4 | 625 | 250 | 9.3 |
| P11 | -2.8 | -2.1 | -2.6 | 0.2 | 625 | 125 | 4.6 |
| M12 | -3.3 | -2.6 | -3.1 | 0.2 | 625 | 125 | 4.6 |
| N14 | -3.5 | -2.8 | -3.3 | 0.2 | 625 | 125 | 4.6 |
| | | | | | Total | 6375 | 236 |

| | |
|---|---|
| Total Volume Removed from Area G (Bathymetric Survey) | 5,539 |
| Volume of Material Over-Dredged | 236 |
| Over-Dredging Percent of Total Dredged Volume | 4.3% |

| | |
|---|---|
| Dredge Plan Volume for the Same Area | 6,037 |
| **Over-Dredged Percent of Dredge Plan Volume** | 3.9% |

Table 2
Area H Dredge Plan Compliance Review
New Bedford Harbor Superfund Site - 2007 Season

**Under-Dredged Z Blocks**

| Cell | Dredged Elevation | Target Elevation | Under-Dredge Tolerence Elevation | Difference from Tolerence Elevation | $ft^2$ of Z-Block | $ft^3$ of Material | $yd^3$ of Material |
|---|---|---|---|---|---|---|---|
| CC22 | -5.6 | -7.6 | -7.1 | 1.5 | 625 | 937.5 | 34.7 |
| CC23 | -5.7 | -7.7 | -7.2 | 1.5 | 625 | 937.5 | 34.7 |
| DD22 | -5.9 | -7.2 | -6.7 | 0.8 | 625 | 500 | 18.5 |
| DD23 | -5.8 | -6.8 | -6.3 | 0.5 | 625 | 312.5 | 11.6 |
| DD31 | -6.1 | -7.2 | -6.7 | 0.6 | 625 | 375 | 13.9 |
| DD39 | -8.6 | -9.2 | -8.7 | 0.1 | 625 | 62.5 | 2.3 |
| DD40 | -8.4 | -9.5 | -9.0 | 0.6 | 625 | 375 | 13.9 |
| DD41 | -7.6 | -8.4 | -7.9 | 0.3 | 625 | 187.5 | 6.9 |
| EE23 | -6.1 | -6.8 | -6.3 | 0.2 | 625 | 125 | 4.6 |
| EE37 | -7.0 | -7.7 | -7.2 | 0.2 | 625 | 125 | 4.6 |
| EE38 | -6.9 | -7.8 | -7.3 | 0.4 | 625 | 250 | 9.3 |
| EE39 | -7.5 | -9.3 | -8.8 | 1.3 | 625 | 812.5 | 30.1 |
| EE40 | -7.6 | -8.4 | -7.9 | 0.3 | 625 | 187.5 | 6.9 |
| EE41 | -7.6 | -8.4 | -7.9 | 0.3 | 625 | 187.5 | 6.9 |
| FF22 | -5.5 | -6.7 | -6.2 | 0.7 | 625 | 437.5 | 16.2 |
| FF23 | -5.5 | -6.3 | -5.8 | 0.3 | 625 | 187.5 | 6.9 |
| FF24 | -4.9 | -6.3 | -5.8 | 0.9 | 625 | 562.5 | 20.8 |
| FF39 | -6.9 | -7.6 | -7.1 | 0.2 | 625 | 125 | 4.6 |
| GG22 | -5.6 | -6.7 | -6.2 | 0.6 | 625 | 375 | 13.9 |
| GG24 | -5.4 | -6.2 | -5.7 | 0.3 | 625 | 187.5 | 6.9 |
| GG25 | -5.2 | -5.8 | -5.3 | 0.1 | 625 | 62.5 | 2.3 |
| GG39 | -6.2 | -6.9 | -6.4 | 0.2 | 625 | 125 | 4.6 |
| GG42 | -6.4 | -7.0 | -6.5 | 0.1 | 625 | 62.5 | 2.3 |
| HH22 | -5.8 | -6.7 | -6.2 | 0.4 | 625 | 250 | 9.3 |
| II26 | -5.2 | -5.8 | -5.3 | 0.1 | 625 | 62.5 | 2.3 |
| JJ30 | -5.3 | -6.0 | -5.5 | 0.2 | 625 | 125 | 4.6 |
| NN31 | -4.7 | -5.9 | -5.4 | 0.7 | 625 | 437.5 | 16.2 |
| NN32 | -5.4 | -6.0 | -5.5 | 0.1 | 625 | 62.5 | 2.3 |
| OO31 | -5.2 | -5.9 | -5.4 | 0.2 | 625 | 125 | 4.6 |
| OO32 | -5.1 | -5.9 | -5.4 | 0.3 | 625 | 187.5 | 6.9 |
| OO35 | -5.9 | -6.5 | -6.0 | 0.1 | 625 | 62.5 | 2.3 |
| PP31 | -5.2 | -5.8 | -5.3 | 0.1 | 625 | 62.5 | 2.3 |
| QQ26 | -2.4 | -5.4 | -4.9 | 2.5 | 625 | 1562.5 | 57.9 |
| RR22 | -4.9 | -5.5 | -5.0 | 0.1 | 625 | 62.5 | 2.3 |
| RR35 | -4.9 | -5.8 | -5.3 | 0.4 | 625 | 250 | 9.3 |
| RR40 | -5.2 | -5.8 | -5.3 | 0.1 | 625 | 62.5 | 2.3 |
| RR41 | -5.0 | -5.9 | -5.4 | 0.4 | 625 | 250 | 9.3 |
| UU25 | -4.7 | -5.3 | -4.8 | 0.1 | 625 | 62.5 | 2.3 |
| UU26 | -4.7 | -5.3 | -4.8 | 0.1 | 625 | 62.5 | 2.3 |
| UU27 | -4.7 | -5.3 | -4.8 | 0.1 | 625 | 62.5 | 2.3 |
| WW29 | -3.2 | -4.7 | -4.2 | 1.0 | 625 | 625 | 23.1 |
| XX29 | -4.1 | -4.7 | -4.2 | 0.1 | 625 | 62.5 | 2.3 |
| XX30 | -4.0 | -4.7 | -4.2 | 0.2 | 625 | 125 | 4.6 |
| ZZ32 | -3.4 | -4.2 | -3.7 | 0.3 | 625 | 187.5 | 6.9 |
| ZZ33 | -3.5 | -4.1 | -3.6 | 0.1 | 625 | 62.5 | 2.3 |
| ZZ41 | -2.5 | -3.4 | -2.9 | 0.4 | 625 | 250 | 9.3 |
| ZZ42 | -1.2 | -3.5 | -3.0 | 1.8 | 625 | 1125 | 41.7 |
| AAA40 | -2.2 | -3.3 | -2.8 | 0.6 | 625 | 375 | 13.9 |
| AAA41 | -2.1 | -3.4 | -2.9 | 0.8 | 625 | 500 | 18.5 |
| BBB38 | -2.2 | -2.8 | -2.3 | 0.1 | 625 | 62.5 | 2.3 |
| | | | | Total | | 14,625 | 542 |

| | |
|---|---|
| Total Volume Removed from Area H (Bathymetric Survey) | 17,768 |
| Less Estimated Amount Under CDF on Western Side | 760 |
| Volume of Material Under-Dredged | 542 |
| Under-Dredged Percent of Total Dredged Volume | 3.2% |

| | |
|---|---|
| Dredge Plan Volume for the Same Area | 22,894 |
| **Under-Dredged Percent of Dredge Plan Volume** | 2.4% |

Note:
Elevations are referenced to NGVD 29 - ft
Volumes in cubic yards unless otherwise noted
CDF = confined disposal facility
$ft^2$ = square feet
$ft^3$ = cubic feet
$yd^3$ = cubic yards

**Over-Dredged Z Blocks**

| Cell | Dredged Elevation | Target Elevation | Over-Dredge Tolerence Elevation | Difference from Tolerence Elevation | $ft^2$ of Z-Block | $ft^3$ of Material | $yd^3$ of Material |
|---|---|---|---|---|---|---|---|
| DD32 | -8.1 | -7.5 | -8.0 | 0.1 | 625 | 62.5 | 2.3 |
| DD33 | -8.9 | -7.7 | -8.2 | 0.7 | 625 | 437.5 | 16.2 |
| DD34 | -9.0 | -8.0 | -8.5 | 0.5 | 625 | 312.5 | 11.6 |
| DD42 | -9.1 | -8.4 | -8.9 | 0.2 | 625 | 125 | 4.6 |
| EE26 | -6.4 | -5.8 | -6.3 | 0.1 | 625 | 62.5 | 2.3 |
| EE27 | -6.3 | -5.3 | -5.8 | 0.5 | 625 | 312.5 | 11.6 |
| EE28 | -6.3 | -5.4 | -5.9 | 0.4 | 625 | 250 | 9.3 |
| EE29 | -6.1 | -5.4 | -5.9 | 0.2 | 625 | 125 | 4.6 |
| EE30 | -6.2 | -5.5 | -6.0 | 0.2 | 625 | 125 | 4.6 |
| EE31 | -6.7 | -5.5 | -6.0 | 0.7 | 625 | 437.5 | 16.2 |
| EE33 | -7.0 | -6.1 | -6.6 | 0.4 | 625 | 250 | 9.3 |
| EE34 | -6.9 | -6.2 | -6.7 | 0.2 | 625 | 125 | 4.6 |
| FF32 | -7.0 | -5.5 | -6.0 | 1.0 | 625 | 625 | 23.1 |
| FF33 | -7.0 | -5.6 | -6.1 | 0.9 | 625 | 562.5 | 20.8 |
| FF34 | -6.7 | -5.7 | -6.2 | 0.5 | 625 | 312.5 | 11.6 |
| FF35 | -6.8 | -6.2 | -6.7 | 0.1 | 625 | 62.5 | 2.3 |
| FF37 | -6.8 | -5.8 | -6.3 | 0.5 | 625 | 312.5 | 11.6 |
| GG32 | -6.4 | -5.5 | -6.0 | 0.4 | 625 | 250 | 9.3 |
| GG33 | -6.6 | -5.5 | -6.0 | 0.6 | 625 | 375 | 13.9 |
| HH33 | -6.3 | -5.5 | -6.0 | 0.3 | 625 | 187.5 | 6.9 |
| HH34 | -6.2 | -5.6 | -6.1 | 0.1 | 625 | 62.5 | 2.3 |
| HH36 | -6.0 | -5.1 | -5.6 | 0.4 | 625 | 250 | 9.3 |
| II39 | -6.0 | -5.3 | -5.8 | 0.2 | 625 | 125 | 4.6 |
| II40 | -6.0 | -5.4 | -5.9 | 0.1 | 625 | 62.5 | 2.3 |
| JJ23 | -5.6 | -5.0 | -5.5 | 0.1 | 625 | 62.5 | 2.3 |
| JJ24 | -5.9 | -5.0 | -5.5 | 0.4 | 625 | 250 | 9.3 |
| JJ33 | -6.2 | -5.3 | -5.8 | 0.4 | 625 | 250 | 9.3 |
| JJ34 | -6.0 | -5.4 | -5.9 | 0.1 | 625 | 62.5 | 2.3 |
| KK22 | -6.1 | -5.1 | -5.6 | 0.5 | 625 | 312.5 | 11.6 |
| KK23 | -5.9 | -4.9 | -5.4 | 0.5 | 625 | 312.5 | 11.6 |
| KK24 | -5.8 | -4.9 | -5.4 | 0.4 | 625 | 250 | 9.3 |
| KK30 | -6.1 | -5.4 | -5.9 | 0.2 | 625 | 125 | 4.6 |
| KK32 | -6.2 | -5.3 | -5.8 | 0.4 | 625 | 250 | 9.3 |
| KK33 | -6.1 | -5.4 | -5.9 | 0.2 | 625 | 125 | 4.6 |
| KK34 | -6.1 | -5.4 | -5.9 | 0.2 | 625 | 125 | 4.6 |
| KK35 | -6.2 | -5.5 | -6.0 | 0.2 | 625 | 125 | 4.6 |
| KK36 | -6.3 | -5.5 | -6.0 | 0.3 | 625 | 187.5 | 6.9 |
| KK39 | -6.4 | -5.8 | -6.3 | 0.1 | 625 | 62.5 | 2.3 |
| LL23 | -5.5 | -4.8 | -5.3 | 0.2 | 625 | 125 | 4.6 |
| LL24 | -5.7 | -4.9 | -5.4 | 0.3 | 625 | 187.5 | 6.9 |
| LL33 | -6.1 | -5.4 | -5.9 | 0.2 | 625 | 125 | 4.6 |
| LL34 | -6.2 | -5.5 | -6.0 | 0.2 | 625 | 125 | 4.6 |
| LL35 | -6.2 | -5.5 | -6.0 | 0.2 | 625 | 125 | 4.6 |
| LL36 | -6.3 | -5.5 | -6.0 | 0.3 | 625 | 187.5 | 6.9 |
| LL37 | -6.3 | -5.6 | -6.1 | 0.2 | 625 | 125 | 4.6 |
| LL42 | -6.3 | -5.5 | -6.0 | 0.3 | 625 | 187.5 | 6.9 |
| MM23 | -5.8 | -4.9 | -5.4 | 0.4 | 625 | 250 | 9.3 |
| MM25 | -6.2 | -5.3 | -5.8 | 0.4 | 625 | 250 | 9.3 |
| MM26 | -6.0 | -5.3 | -5.8 | 0.2 | 625 | 125 | 4.6 |
| MM27 | -5.9 | -5.3 | -5.8 | 0.1 | 625 | 62.5 | 2.3 |
| MM33 | -6.0 | -5.4 | -5.9 | 0.1 | 625 | 62.5 | 2.3 |
| MM37 | -6.3 | -5.6 | -6.1 | 0.2 | 625 | 125 | 4.6 |
| MM38 | -6.3 | -5.6 | -6.1 | 0.2 | 625 | 125 | 4.6 |
| NN27 | -5.4 | -4.8 | -5.3 | 0.1 | 625 | 62.5 | 2.3 |
| OO25 | -5.6 | -4.7 | -5.2 | 0.4 | 625 | 250 | 9.3 |
| OO26 | -5.5 | -4.7 | -5.2 | 0.3 | 625 | 187.5 | 6.9 |
| OO27 | -5.4 | -4.7 | -5.2 | 0.2 | 625 | 125 | 4.6 |
| OO39 | -6.1 | -5.5 | -6.0 | 0.1 | 625 | 62.5 | 2.3 |
| PP24 | -5.7 | -5.1 | -5.6 | 0.1 | 625 | 62.5 | 2.3 |
| PP25 | -5.8 | -4.7 | -5.2 | 0.6 | 625 | 375 | 13.9 |
| PP26 | -5.7 | -4.7 | -5.2 | 0.5 | 625 | 312.5 | 11.6 |
| PP27 | -5.8 | -4.7 | -5.2 | 0.6 | 625 | 375 | 13.9 |
| PP28 | -5.7 | -4.7 | -5.2 | 0.5 | 625 | 312.5 | 11.6 |
| PP29 | -5.6 | -4.8 | -5.3 | 0.3 | 625 | 187.5 | 6.9 |
| PP34 | -6.1 | -5.5 | -6.0 | 0.1 | 625 | 62.5 | 2.3 |
| PP37 | -6.2 | -5.5 | -6.0 | 0.2 | 625 | 125 | 4.6 |
| QQ23 | -5.8 | -5.1 | -5.6 | 0.2 | 625 | 125 | 4.6 |
| QQ24 | -5.5 | -4.6 | -5.1 | 0.4 | 625 | 250 | 9.3 |
| QQ25 | -5.4 | -4.6 | -5.1 | 0.3 | 625 | 187.5 | 6.9 |
| QQ28 | -5.5 | -4.7 | -5.2 | 0.3 | 625 | 187.5 | 6.9 |
| QQ35 | -6.2 | -5.4 | -5.9 | 0.3 | 625 | 187.5 | 6.9 |
| QQ38 | -6.5 | -5.9 | -6.4 | 0.1 | 625 | 62.5 | 2.3 |
| RR27 | -5.2 | -4.6 | -5.1 | 0.1 | 625 | 62.5 | 2.3 |
| TT38 | -5.4 | -4.5 | -5.0 | 0.4 | 625 | 250 | 9.3 |
| TT39 | -5.4 | -4.5 | -5.0 | 0.4 | 625 | 250 | 9.3 |
| TT40 | -5.2 | -4.5 | -5.0 | 0.2 | 625 | 125 | 4.6 |
| | | | | Total | | 14,688 | 544 |

| | |
|---|---|
| Total Volume Removed from Area H (Bathymetric Survey) | 17,768 |
| Less Estimated Amount Under CDF on Western Side | 760 |
| Volume of Material Over-Dredged | 544 |
| Over-Dredging Percent of Total Dredged Volume | 3.2% |

| | |
|---|---|
| Dredge Plan Volume for the Same Area | 22,894 |
| **Over-Dredged Percent of Dredge Plan Volume** | 2.4% |

# ATTACHMENT A

# Dredge Planning and Progress Figures

CBI

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# ATTACHMENT B

# Summary of 2007 Activities

**Attachment B**
**Summary of 2007 Activities**
**New Bedford Harbor Superfund Site - 2007 Season**

| Date | Activity | Summary |
|---|---|---|
| **Revise/Submit Planning Documents** | | |
| Draft April 2004,<br>Final July 2004,<br>Addendum No. 1 May 2005<br>Addendum No. 2 April 2006<br>Addendum No. 3 March 2007 | Prepare and submit revised plan. | Preparation and submittal of *Addendum No. 3 to the Execution Plan* outlining the remediation of the New Bedford Harbor Superfund Site to be accomplished for the 2007 field season. |
| Draft April 2004,<br>Final September 2004 Revised August 2007 | Prepare and submit revised plan. | Preparation and submittal of Site Specific Safety & Health Plan |
| Draft May 2004,<br>Final September 2004 Revised June 2007 | Prepare and submit revised plan. | Preparation and submittal of Emergency Response Contingency Plan |
| Draft May 2004,<br>Final August 2004,<br>Revised August 2005,<br>Revised December 2005<br>Revised June 2007 | Prepare and submit revised plan. | Preparation and submittal of Field Sampling Plan |
| Draft July 2004,<br>Final November 2004,<br>Revised August 2005,<br>Revised May 2007 | Prepare and submit revised plan. | Preparation and submittal of Regulatory Compliance Plan |
| Draft May 2007<br>Final June 2007 | Prepare and submit plan | Preparation and submittal of Fish Migration Impact Plan |
| **Submittal of Initial Task Order/Subsequent Modifications** | | |
| 2/9/2007 | Modification 21 | **Tasks under Modification 21 were for the following:** Planning and sampling activities associated with Aerovox Facility. |
| 3/15/2007 | Modification 22 | **Tasks under Modification 22 were for the following:** Change POP to 6/30/2007; deobligate funds and move in order to open TO 5. |
| 6/5/2007 | Modification 23 | **Tasks under Modification 23 were for the following:** Increase O&M funding for the period of 7/1/2007 - 12/31/2007. |
| 10/17/2007 | Modification 24 | **Tasks under Modification 24 were for the following:** Incentive fee for project 03. |
| 7/10/2007 | D0006 | **Tasks under TO 6 were for the following:** Original funding TO 6 and Project 35BG0601 (Tasks 1, 2, 3 - The mobilization, demobilization, T&D costs associated with the first 20 days of dredging in 2007 and Area D Settlement Repairs). |

**Attachment B**
**Summary of 2007 Activities**
**New Bedford Harbor Superfund Site - 2007 Season**

| Date | Activity | Summary |
|---|---|---|
| **Submittal of Initial Task Order/Subsequent Modifications (Continued)** | | |
| 8/21/2007 | Modification 1 | **Tasks under Modification 1 were for the following:** Task 4 - an additional 20 days of processing and the associated T&D of dredged material; Task 10 - T&D of 350 cy of TSCA Debris and 100 cy of Non-TSCA Coarse material from Area C; and FCN 51 - placement of coarse grained material from Area C's DDA into CDF cell 1. |
| 9/12/2007 | Modification 2 | **Tasks under Modification 2 were for the following:** Task 8 - An additional 5 days of dredging. |
| 10/5/2007 | Modification 3 | **Tasks under Modification 3 were for the following:** Additional T&D associated with higher production rates, FCNs 47, 48, 50, 52, 54 (GPS replacement, sampling prior to debris removal, Area D Settlement Area Repair, OU3 Bathymetric Survey and 2 week rental of GPS). |
| 11/6/2007 | Modification 4 | **Tasks under Modification 4 were for the following:** No cost POP extension. |
| 11/30/2007 | Modification 5 | **Tasks under Modification 5 were for the following:** 35BG0602 original (off season work and O&M for the first half of 2008). |
| **Mobilization Activities** | | |
| July/August 2007 | Mobilization of Equipment and Personnel Associated with 2007 Dredging Activities | The 2007 remobilization activities included the installation of sheet piles in Dredge Areas G and H, mobilizing the dredges and associated dredge pipelines, staging the combined booster pump/ferric injection system at Aerovox, and the staging of a second booster pump station at Manomet Street. At Area D, the major activities were the rebuilding of the conveyor belts at the filter presses and the replacement of granular activated carbon in air filtration vessel and water treatment GAC vessels. The remainder of the mobilization activities involved general maintenance and repair activities. |
| July/August 2007 | Booster Pumps and Ferric System Setup | Assemble combination of booster pump and ferric sulfate injection system at Aerovox and the associated booster pump station at Manomet Street. Installed in-line grinder 8/2/07. Preparatory meeting (7/24/07). Quality Control Report (QCR #39 Ferric Injection Pump) |
| July/August 2007 | Service Test Pipelines Preparation and Shakedown. | Preparatory meeting (7/24/07), Initial Inspection (7/30/07) and Follow-up Inspection & Quality Control Reports (QCR #37 - Pipeline Re-assembly and QCR #34 - Scale Inspections 2007, and QCR #38 - Pipeline Service Test). |
| August 2007 | Transportation & Disposal Preparation | Preparatory meeting (8/2/07), liner training (8/2/07), rail worker training (8/3/07). |

**Attachment B**
**Summary of 2007 Activities**
**New Bedford Harbor Superfund Site - 2007 Season**

| Date | Activity | Summary |
|---|---|---|
| **Dredging and Associated Activities** | | |
| 7/25 - 10/23/2007 | Area D bulkhead repairs. | Preparatory meeting (7/18/07), remove asphalt (7/27/07), drill concrete and set rebar (8/2/07), pour concrete (8/13/07), complete drainage trench and re-pave (10/23/07). |
| 8/2/2007 | Initiated debris removal activities. | Mobilized scows, flexi-floats, excavator with add-a-stick and debris rake. |
| 8/9/2007 | Initiated dredging activities in the southern dredge area, Dredge Area H, primarily Dredge Management Unit-11 (DMU-11) also included DMU-9, and DMU-10. | Waste water treatment plant on-line (8/1/07). Begin pumping mud 8/8/07, begin full scale dredging 8/9/07. QCR #41 dredge plan compliance. Post dredge harbor elevation checks performed regularly. |
| 8/16/2007 | Initiate loading of Rail Cars with Filter Cake at Area D | First railcar loaded with filter cake. |
| 8/17/2007 | Initiated dredging activities in the northern Dredge Area G (primarily MU-102 (MF), and DMU-1. | Dredging of Area G partially completed during 2007 season. (see Figure A-19) |
| 9/26/2007 | Debris removal activities were completed in the 2007 Dredge Footprint. | On 9/26/07, debris removal activities in the active dredge areas were completed for the 2007 season, portions of Area G not completed. In addition, at the direction of the EPA and NAE, debris removal activities were conducted on the eastern boundary of proposed CDF B, along the western boundary of Dredge Area H. |
| September | Sand and coarse materials were transferred to Cell #1 at Area C | During this period, coarse material generated during the 2005, 2006, and 2007 dredging seasons and stockpiled in the DDA was placed in Cell #1 at Area C and covered with approximately 6 inches of clean dense grade. |
| 10/4 - 10/18/2007 | Transportation and Disposal of Debris from Area C DDA | During this period, H & S, the subcontracted transportation and disposal subcontractor, removed approximately 175 tons of debris, oil booms and other dredging generated waste that was stored at the Area C DDA. The debris was disposed of in the Romulus landfill as TSCA material. |
| 8/8 - 10/4/2007 | Completed the first 40 days of Dredging | Dredging activities completed under Modifications 15 and 17, which each included 20 days of dredging. |
| 10/15 - 10/12/2007 | Completed the 2007 Dredge Season | Dredging activities completed under Modification 19. |
| **Air Monitoring Activities** | | |
| Not Conducted in 2007 | Pre-Dredge Background Sampling | In 2007 pre-dredge sampling activities were not conducted. |
| 8/20-21/2007 | 1st Round of Monthly Air Sampling | Air samples collected per site Sampling and Analysis Plan. Seven samples collected in first round. Preparatory Meeting (8/2/07), Initial Inspection 8/20/07, and the follow-up Inspection Quality & Control Report (QCR #26 - Air Sampling Audit). |
| 9/17-18/2007 | 2nd Round of Monthly Air Sampling | Air samples were collected from seven sampling locations. |
| 11/8-9/2007 | Post Dredge 3rd Round of Air Sampling | Air samples were collected from six sampling locations. |

**Attachment B**
**Summary of 2007 Activities**
**New Bedford Harbor Superfund Site - 2007 Season**

| Date | Activity | Summary |
|---|---|---|
| **Bathymetric Survey** | | |
| 5/16-17/07 | Pre-Dredge Survey in Dredge Areas G and H | Pre-dredge survey conducted. |
| 6/22/2007 | Pre-Dredge Survey in Dredge Areas G and H | Additional pre-dredge survey performed. |
| 8/19/2007 | Progress survey in Dredge Area H | Survey conducted by Apex. Preparatory Meeting (7/25/07). |
| 8/25/2007 | Progress survey in Dredge Areas G and H | Survey conducted by Apex. |
| 8/31/2007 | Progress survey in Dredge Area H | Survey conducted by Apex. |
| 9/8/2007 | Progress survey in Dredge Areas G and H | Survey conducted by Apex. |
| 9/15/2007 | Progress survey in Dredge Areas G and H | Survey conducted by Apex. |
| 9/22/2007 | Progress survey in Dredge Areas G and H | Survey conducted by Apex. |
| 9/29/2007 | Progress survey in Dredge Areas G and H | Survey conducted by Apex. |
| 10/6/2007 | Progress survey in Dredge Area H | Survey conducted by Apex. |
| 10/13/2007 | Post Dredge Survey in Dredge Area G | Survey conducted by Apex. |
| 11/1/2007 | Post Dredge Survey in Dredge Area H | Survey conducted by Apex. |
| **Winterization Activities** | | |
| 10/13-10/25/07 | Winterization and Demobilization | Demobilization and winterization activities were completed for all operations. Preparatory Meeting (10/11/07). Completed 10/25/07. |

CDF = confined disposal facility
DDA = dredge disposal area
EPA = U.S. Environmental Protection Agency
FCN = field change notice
GAC = granular activated carbon
NAE = U.S. Army Corps of Engineers - New England District
O&M = operations and maintenance
POP = period of performance
QCR = quality control report
T&D = transportation and disposal
TSCA = Toxic Substances Control Act

# ATTACHMENT C

# Sample Analytical Summary Tables

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# ATTACHMENT D

# Transportation and Disposal Reports

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# ATTACHMENT E

# NBH Occupational PCB Exposure Evaluation for 2007 Season

**Table E-1**
**NBH Occupational PCB Exposure Evaluation for 2007 Season**
**New Bedford Harbor Superfund Site - 2007 Season**

| Location | Date Sampled | Results ($mg/m^3$)[1] | 12-Hour TWA ($mg/m^3$) [2], [3] | Results ($ng/m^3$)[4] | % of 12-Hour TWA |
|---|---|---|---|---|---|
| Dredge | 8/16/2007 | 0.0020 | 0.375 | 2000 | 0.53 |
| | 8/23/2007 | 0.0024 | 0.375 | 2400 | 0.64 |
| | 8/30/2007 | 0.0021 | 0.375 | 2100 | 0.56 |
| | 9/6/2007 | 0.0019 | 0.375 | 1900 | 0.51 |
| | 9/13/2007 | 0.0029 | 0.375 | 2900 | 0.77 |
| | 9/20/2007 | 0.0026 | 0.375 | 2600 | 0.69 |
| | 9/27/2007 | 0.0036 | 0.375 | 3600 | 0.96 |
| | 10/4/2007 | 0.0019 | 0.375 | 1900 | 0.51 |
| | 10/11/2007 | 0.0023 | 0.375 | 2300 | 0.61 |
| Excavator - Debris Removal | 8/16/2007 | 0.0019 | 0.375 | 1900 | 0.51 |
| | 8/23/2007 | 0.0023 | 0.375 | 2300 | 0.61 |
| | 8/30/2007 | 0.0030 | 0.375 | 3000 | 0.80 |
| | 9/6/2007 | 0.0020 | 0.375 | 2000 | 0.53 |
| | 9/13/2007 | 0.0018 | 0.375 | 1800 | 0.48 |
| | 9/20/2007 | 0.0037 | 0.375 | 3700 | 0.99 |
| | 9/27/2007 | 0.0027 | 0.375 | 2700 | 0.72 |
| | 10/4/2007 | 0.0026 | 0.375 | 2600 | 0.69 |
| | 10/11/2007 | N/A[5] | 0.375 | N/A | N/A |
| Dewatering Mix Tank | 8/16/2007 | 0.0071 | 0.375 | 7100 | 1.89 |
| | 8/23/2007 | N/A | 0.375 | N/A | N/A |
| | 8/30/2007 | 0.0035 | 0.375 | 3500 | 0.93 |
| | 9/6/2007 | 0.0025 | 0.375 | 2500 | 0.67 |
| | 9/13/2007 | 0.0026 | 0.375 | 2600 | 0.69 |
| | 9/20/2007 | 0.0036 | 0.375 | 3600 | 0.96 |
| | 9/27/2007 | 0.0020 | 0.375 | 2000 | 0.53 |
| | 10/4/2007 | 0.0060 | 0.375 | 6000 | 1.60 |
| | 10/11/2007 | 0.0023 | 0.375 | 2300 | 0.61 |
| Filter Press | 8/16/2007 | N/A | 0.375 | N/A | N/A |
| | 8/23/2007 | N/A | 0.375 | N/A | N/A |
| | 8/30/2007 | 0.0064 | 0.375 | 6400 | 1.71 |
| | 9/6/2007 | 0.0035 | 0.375 | 3500 | 0.93 |
| | 9/13/2007 | 0.0030 | 0.375 | 3000 | 0.80 |
| | 9/20/2007 | 0.0046 | 0.375 | 4600 | 1.23 |
| | 9/27/2007 | 0.0041 | 0.375 | 4100 | 1.09 |
| | 10/4/2007 | 0.0101 | 0.375 | 10100 | 2.69 |
| | 10/11/2007 | 0.0034 | 0.375 | 3400 | 0.91 |
| Desanding | 8/16/2007 | N/A | 0.375 | N/A | N/A |
| | 8/23/2007 | N/A | 0.375 | N/A | N/A |
| | 8/30/2007 | 0.0024 | 0.375 | 2400 | 0.64 |
| | 9/6/2007 | 0.0041 | 0.375 | 4100 | 1.09 |
| | 9/13/2007 | 0.0033 | 0.375 | 3300 | 0.88 |
| | 9/20/2007 | 0.0036 | 0.375 | 3600 | 0.96 |
| | 9/27/2007 | 0.0040 | 0.375 | 4000 | 1.07 |
| | 10/4/2007 | 0.0029 | 0.375 | 2900 | 0.77 |
| | 10/11/2007 | 0.0039 | 0.375 | 3900 | 1.04 |

Notes:
(1) $mg/m^3$ = miligrams per cubic meter
(2) TWA = Time Weighted Average Exposure Limit
(3) TWA adjusted for 12-hour shift
(4) $ng/m^3$ = nanograms per cubic meter
(5) N/A = not applicable

# ATTACHMENT F

# Ambient Air Monitoring Information


Legend

Aerial Photography MASSGIS 2005

**Ambient Air Sampling Locations**

Sample Station

0 750 1,500 Feet

1:18,000

JACOBS

2007 Ambient Air Sampling Station Locations

New Bedford Harbor Superfund Site

NAME: croberts DATE: 1/8/2008

Figure F-1

Y:\NB\HP\projects\358\02\60\20\0801\08\ArcGIS\2007_ambient_sampling_stations.mxd

**Table F-1**
**Ambient Monitoring Program - Total Detectable PCBs (Homologues) in Air**
**New Bedford Harbor Superfund Site - 2007 Season**

| | Station 24 | Station 55 | Station 25 | Station 42 | Station 46 | Station 47 | Station 48 | Station 49 | Station 50 | Station 51 | Station 52 | Station 53 | Station 56 | Blank | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling [1] Period** | **Aerovox [2] (ng/m$^3$)** | **Aerovox West Upwind (ng/m$^3$)** | **Cliftex (ng/m3)** | **Nstar (ng/m$^3$)** | **Coffin Avenue (ng/m$^3$)** | **Area C Downwind (ng/m$^3$)** | **Area C [3] Crosswind (ng/m$^3$)** | **Area C Downwind (ng/m$^3$)** | **Area D Downwind (ng/m$^3$)** | **Area D Downwind (ng/m$^3$)** | **Area D (ng/m$^3$)** | **Dredge (ng/m$^3$)** | **Acushnet Park (ng/m$^3$)** | **(ng/m$^3$) Sample** | **Comments** |
| **2005 Events** | | | | | | | | | | | | | | | |
| 8/10 to 8/11 | 216 | 42.1 | 103 | 25.9 | 37.2 | NS [4] | NS | 29.3 | NS | NS | 21.3 | NS | 49.9 | 0.32 | |
| Round 1 2005 | | 44.1 | | | | | | | | | | | | | Field Duplicate |
| 9/14 to 9/15 | 1,490 | 37.6 | 58.2 | 22.5 | 99.8 | NS | 14.9 | 83.6 | 0.52 | NS | NS | 1,280 | 102 | 0.26 | |
| Round 2 2005 | | | | | | | | | | | | | | | No Duplicate Sample |
| 9/22 to 9/23 | 178 | 2.64 | 35.2 | 83.3 | 115 | NS | 19.1 | 97 | 0.26 | NS | NS | 780 | 23.9 | 0.54 | |
| Round 3 2005 | | | | | | | 18.8 | | | | | | | | Field Duplicate |
| 9/28 to 9/29 | 383 | 87 | 104 | 5.28 | 124 | NS | 17.3 | 44.2 | 24.2 | NS | NS | 391 | 77.9 | 1.16 | |
| Round 4 2005 | | | | | | | | | | | | | | | NAE Duplicate [7] |
| 10/5 to 10/6 | 1,822 | 222 | 251 | 119 | 130 | NS | 60.1 | 114 | 81.7 | NS | NS | 6,315 | 180 | 0.96 | |
| Round 5 2005 | 1708 | | | | | | | | | | | | | | Field Duplicate |
| 10/27 to 10/28 | 15.4 | 3.97 | NA [5] | 32.3 | 2.06 | NS | 4.61 | 12.3 | 0.01 | NS | NS | 505 | 2.73 | 0.42 | |
| Round 6 2005 | | | | | | | | | | | | | | | NAE Duplicate [7] |
| 11/17 to 11/18 | 15.9 | 0.12 | 0.12 | 63.6 | 0.14 | NS | 0.139 | 3.71 | NA [6] | NS | NS | 913 | 3.76 | 1.73 | |
| Round 7 2005 | 14.9 | | | | | | | | | | | | | | Field Duplicate |
| 12/28 to 12/29 | 83.2 | 10.8 | 10.9 | 21.4 | 65.1 | 7.42 | NS | NS | NS | 2.18 | NS | NS | 13.5 | 0.33 | |
| Round 8 2005 | | | | | | | | | | | | | | | NAE Duplicate [7] |
| **2006 Events** | | | | | | | | | | | | | | | |
| 8/30 to 8/31 | 1,629 | NS | 176 | NS | 70.4 | 39.2 | NS | NS | NS | 67.3 | NS | 2,336 | NS | 1.57 | |
| Round 1 2006 | 1,387 | | | | | | | | | | | | | | Field Duplicate |
| 10/4 to 10/6 | 2,357 | NS | 451 [8] | NS | 108 | NS | NS | 157 | NS | NS | 197 | 13,430 | NS | 6.65 | |
| Round 2 2006 | | | | | | | | | | | | | | | NAE Duplicate [7] |
| 11/18 to 11/19 | 41.1 | NS | 0.14 | NS | 4.05 | NS | NS | 81.4 | 2.6 | NS | NS | NS | NS | 0.74 | |
| Round 3 2006 | 0.25 | | | | | | | | | | | | | | Field Duplicate |
| **2007 Events** | | | | | | | | | | | | | | | |
| 8/20 to 8/21 | 282 | NS | 147 | 19.2 | 36.1 | 46.9 | NS | NS | 36.7 | NS | NS | 138 | NS | 1.81 | |
| Round 1 2007 | 291 | | | | | | | | | | | | | | Field Duplicate |
| 9/17 to 9/18 | 176 | NS | 120 | 16.3 | 21.4 | 57.1 | NS | NS | 48.7 | NS | NS | 130 | NS | 1.66 | |
| Round 2 2007 | | | | | | | | | | | | | | | NAE Duplicate [7] |
| 11/8 to 11/9 | 19.7 | NS | 20.2 | 15.7 | 1.86 | 9.29 | NS | NS | NS | 4.39 | NS | NS | NS | 0.376 | |
| Round 3 2007 | 19.4 | | | | | | | | | | | | | | Field Duplicate |

Notes:
[1] Sampled and analyzed using EPA Method TO-10A (modified for low flow).
[2] All results reported for 24-hour time-weighted average in nanograms per cubic meter of air (ng/m $^3$).
[3] Station 48 was a cross-wind location for the 2004 and 2005 season and is no longer sampled.
[4] NS = not sampled.
[5] NA = not analyzed, sample tube for Station 25 was broken during transport.
[6] NA = not analyzed, sample tube for Station 50 was broken during analysis preparation.
[7] Duplicate sent to USACE laboratory, no results provided.
[8] During the first day of sampling in 2006, the duplicate sample was to be collected at Station 25. However, one of the two sampling pumps failed at Station 25, and neither sample were not submitted for analysis. Therefore, the sample and associated duplicate sample were collected on the following day from Station 25 and submitted for analysis.

# Air Sampling Status Reports (PETS Curves)

# Air Sampling Status Report

New Bedford Harbor Superfund Site

**Station #:** 24 Aerovox
Exposure Budget Slope (EBS) = 344 nanograms per cubic meter per day (ng/$m^3$-day)

**Collection Date:** 11/30/2007

**Construction Activity:** The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

**Summary of This Sampling Period:**

The results from the Foster Wheeler, Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 24 Aerovox, the Foster Wheeler quarterly average ambient air PCB concentrations for the June 1999 through May 2000 baseline sampling were used as background concentrations. These background concentrations were used to project the PCB concentrations during for the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the recent inactive field season. In addition, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 24 Aerovox from August 16, 2006 (the start of dredging activities). To better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 24 Aerovox from August 7, 2007 (the start of dredging activities).

Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations present at Station 24 Aerovox during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006, and the first 2006 sampling event was conducted two weeks after the start of dredging, this new variation of the PETs curve was used. Also, the background concentrations were projected to be at background levels at Station 24 Aerovox on October 19, 2006, which is the day after the 2006 dredging activities were completed. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 24 Aerovox on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2006 and 2007 dredging activities. No triggers were identified, therefore, no action is required.

| | | |
|---|---|---|
| | | |
| **Monitoring Station** | | 24 Aerovox |
| **Exposure Budget Slope** | [ng/m$^3$-day] | 344 |
| **Work Start Date** | [mm/dd/yyyy] | 11/12/2002 |
| **Projected Work End Date (Per EPA)** | [mm/dd/yyyy] | 11/10/2028 |
| | | |
| **Occupational Limit Used as Ceiling** | [ng/m$^3$] | 500,000 |
| | | |
| **TEL for Worker in Public** | [ng/m$^3$] | 50,000 |
| **NTEL for Worker in Public** | [ng/m$^3$] | 1,789 |
| **Minimum of TEL/NTEL** | [ng/m$^3$] | 1,789 |
| | | |
| **Baseline Average Concentration** | [ng/m$^3$] | 75 |
| | | |
| | | |
| Notes: | | |
| TEL - Threshold Effects Exposure Limit | | |
| NTEL - Non-Threshold Effects Exposure Limits | | |
| The EPA periodically assesses this Projected Work End Date, which is subject to change. | | |

# Sample Results, Calculated Budget and Exposure Values
## 24 Aerovox Location

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 1 | 11/12/2002 | 0 | 0 | 9495 | 67 | 67.00 | 67.00 | NC | NC | NC | NC | NC | NC |
| 2 | 11/30/2002 | 18 | 18 | 9477 | 67 | 67.00 | 67.00 | 6192 | 6192 | 1206.0 | 1,206.0 | 19.5% | 19.5% |
| 3 | 12/1/2002 | 1 | 19 | 9476 | 32 | 49.50 | 66.08 | 344 | 6536 | 49.5 | 1,255.5 | 14.4% | 19.2% |
| 4 | 2/28/2003 | 89 | 108 | 9387 | 32 | 32.00 | 38.00 | 30616 | 37152 | 2848.0 | 4,103.5 | 9.3% | 11.0% |
| 5 | 5/31/2003 | 92 | 200 | 9295 | 76 | 54.00 | 45.36 | 31648 | 68800 | 4968.0 | 9,071.5 | 15.7% | 13.2% |
| 6 | 8/31/2003 | 92 | 292 | 9203 | 130 | 103.00 | 63.52 | 31648 | 100448 | 9476.0 | 18,547.5 | 29.9% | 18.5% |
| 7 | 11/30/2003 | 91 | 383 | 9112 | 67 | 98.50 | 71.83 | 31304 | 131752 | 8963.5 | 27,511.0 | 28.6% | 20.9% |
| 8 | 2/28/2004 | 90 | 473 | 9022 | 32 | 49.50 | 67.58 | 30960 | 162712 | 4455.0 | 31,966.0 | 14.4% | 19.6% |
| 9 | 5/31/2004 | 93 | 566 | 8929 | 76 | 54.00 | 65.35 | 31992 | 194704 | 5022.0 | 36,988.0 | 15.7% | 19.0% |
| 10 | 8/31/2004 | 92 | 658 | 8837 | 130 | 103.00 | 70.61 | 31648 | 226352 | 9476.0 | 46,464.0 | 29.9% | 20.5% |
| 11 | 9/8/2004 | 8 | 666 | 8829 | 67 | 98.50 | 70.95 | 2752 | 229104 | 788.0 | 47,252.0 | 28.6% | 20.6% |
| 12 | 9/9/2004 | 1 | 667 | 8828 | 1024 | 545.50 | 71.66 | 344 | 229448 | 545.5 | 47,797.5 | 158.6% | 20.8% |
| 13 | 9/14/2004 | 5 | 672 | 8823 | 1449 | 1236.50 | 80.33 | 1720 | 231168 | 6182.5 | 53,980.0 | 359.4% | 23.4% |
| 14 | 9/23/2004 | 9 | 681 | 8814 | 588 | 1018.50 | 92.73 | 3096 | 234264 | 9166.5 | 63,146.5 | 296.1% | 27.0% |
| 15 | 9/27/2004 | 4 | 685 | 8810 | 9557 | 5072.50 | 121.81 | 1376 | 235640 | 20290.0 | 83,436.5 | 1474.6% | 35.4% |
| 16 | 10/19/2004 | 22 | 707 | 8788 | 559 | 5058.00 | 275.41 | 7568 | 243208 | 111276.0 | 194,712.5 | 1470.3% | 80.1% |
| 17 | 11/5/2004 | 17 | 724 | 8771 | 578 | 568.50 | 282.29 | 5848 | 249056 | 9664.5 | 204,377.0 | 165.3% | 82.1% |
| 18 | 12/3/2004 | 28 | 752 | 8743 | 30 | 304.00 | 283.10 | 9632 | 258688 | 8512.0 | 212,889.0 | 88.4% | 82.3% |
| 19 | 2/28/2005 | 87 | 839 | 8656 | 32 | 31.00 | 256.96 | 29928 | 288616 | 2697.0 | 215,586.0 | 9.0% | 74.7% |
| 20 | 5/31/2005 | 92 | 931 | 8564 | 76 | 54.00 | 236.90 | 31648 | 320264 | 4968.0 | 220,554.0 | 15.7% | 68.9% |
| 21 | 8/10/2005 | 71 | 1002 | 8493 | 130 | 103.00 | 227.41 | 24424 | 344688 | 7313.0 | 227,867.0 | 29.9% | 66.1% |
| 22 | 8/11/2005 | 1 | 1003 | 8492 | 216 | 173.00 | 227.36 | 344 | 345032 | 173.0 | 228,040.0 | 50.3% | 66.1% |
| 23 | 9/15/2005 | 35 | 1038 | 8457 | 1490 | 853.00 | 248.45 | 12040 | 357072 | 29855.0 | 257,895.0 | 248.0% | 72.2% |
| 24 | 9/23/2005 | 8 | 1046 | 8449 | 178 | 834.00 | 252.93 | 2752 | 359824 | 6672.0 | 264,567.0 | 242.4% | 73.5% |
| 25 | 9/29/2005 | 6 | 1052 | 8443 | 383 | 280.50 | 253.09 | 2064 | 361888 | 1683.0 | 266,250.0 | 81.5% | 73.6% |
| 26 | 10/6/2005 | 7 | 1059 | 8436 | 1822 | 1102.50 | 258.70 | 2408 | 364296 | 7717.5 | 273,967.5 | 320.5% | 75.2% |
| 27 | 10/28/2005 | 22 | 1081 | 8414 | 15.4 | 918.70 | 272.14 | 7568 | 371864 | 20211.4 | 294,178.9 | 267.1% | 79.1% |
| 28 | 11/18/2005 | 21 | 1102 | 8393 | 15.9 | 15.65 | 267.25 | 7224 | 379088 | 328.7 | 294,507.6 | 4.5% | 77.7% |
| 29 | 12/29/2005 | 41 | 1143 | 8352 | 83.2 | 49.55 | 259.44 | 14104 | 393192 | 2031.6 | 296,539.1 | 14.4% | 75.4% |
| 30 | 2/28/2006 | 61 | 1204 | 8291 | 32 | 57.60 | 249.21 | 20984 | 414176 | 3513.6 | 300,052.7 | 16.7% | 72.4% |
| 31 | 5/31/2006 | 92 | 1296 | 8199 | 76 | 54.00 | 235.36 | 31648 | 445824 | 4968.0 | 305,020.7 | 15.7% | 68.4% |
| 32 | 8/15/2006 | 76 | 1372 | 8123 | 130 | 103.00 | 228.02 | 26144 | 471968 | 7828.0 | 312,848.7 | 29.9% | 66.3% |
| 33 | 8/16/2006 | 1 | 1373 | 8122 | 1629 | 879.50 | 228.50 | 344 | 472312 | 879.5 | 313,728.2 | 255.7% | 66.4% |
| 34 | 8/31/2006 | 15 | 1388 | 8107 | 1629 | 1629.00 | 243.63 | 5160 | 477472 | 24435.0 | 338,163.2 | 473.5% | 70.8% |
| 35 | 10/5/2006 | 35 | 1423 | 8072 | 2357 | 1993.00 | 286.66 | 12040 | 489512 | 69755.0 | 407,918.2 | 579.4% | 83.3% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Sample Results, Calculated Budget and Exposure Values
# 24 Aerovox Location

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 36 | 10/19/2006 | 14 | 1437 | 8058 | 41.1 | 1199.05 | 295.55 | 4816 | 494328 | 16786.7 | 424,704.9 | 348.6% | 85.9% |
| 37 | 11/19/2006 | 31 | 1468 | 8027 | 41.1 | 41.10 | 290.18 | 10664 | 504992 | 1274.1 | 425,979.0 | 11.9% | 84.4% |
| 38 | 11/30/2006 | 11 | 1479 | 8016 | 67 | 54.05 | 288.42 | 3784 | 508776 | 594.6 | 426,573.6 | 15.7% | 83.8% |
| 39 | 2/28/2007 | 90 | 1569 | 7926 | 32 | 49.50 | 274.72 | 30960 | 539736 | 4455.0 | 431,028.6 | 14.4% | 79.9% |
| 40 | 5/31/2007 | 92 | 1661 | 7834 | 76 | 54.00 | 262.49 | 31648 | 571384 | 4968.0 | 435,996.6 | 15.7% | 76.3% |
| 41 | 8/6/2007 | 67 | 1728 | 7767 | 130 | 103.00 | 256.31 | 23048 | 594432 | 6901.0 | 442,897.6 | 29.9% | 74.5% |
| 42 | 8/7/2007 | 1 | 1729 | 7766 | 282 | 206.00 | 256.28 | 344 | 594776 | 206.0 | 443,103.6 | 59.9% | 74.5% |
| 43 | 8/21/2007 | 14 | 1743 | 7752 | 282 | 282.00 | 256.48 | 4816 | 599592 | 3948.0 | 447,051.6 | 82.0% | 74.6% |
| 44 | 9/18/2007 | 28 | 1771 | 7724 | 176 | 229.00 | 256.05 | 9632 | 609224 | 6412.0 | 453,463.6 | 66.6% | 74.4% |
| 45 | 10/13/2007 | 25 | 1796 | 7699 | 67 | 121.50 | 254.18 | 8600 | 617824 | 3037.5 | 456,501.1 | 35.3% | 73.9% |
| 46 | 11/9/2007 | 27 | 1823 | 7672 | 19.7 | 43.35 | 251.05 | 9288 | 627112 | 1170.5 | 457,671.5 | 12.6% | 73.0% |
| 47 | 11/30/2007 | 21 | 1844 | 7651 | 67 | 43.35 | 248.69 | 7224 | 634336 | 910.4 | 458,581.9 | 12.6% | 72.3% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

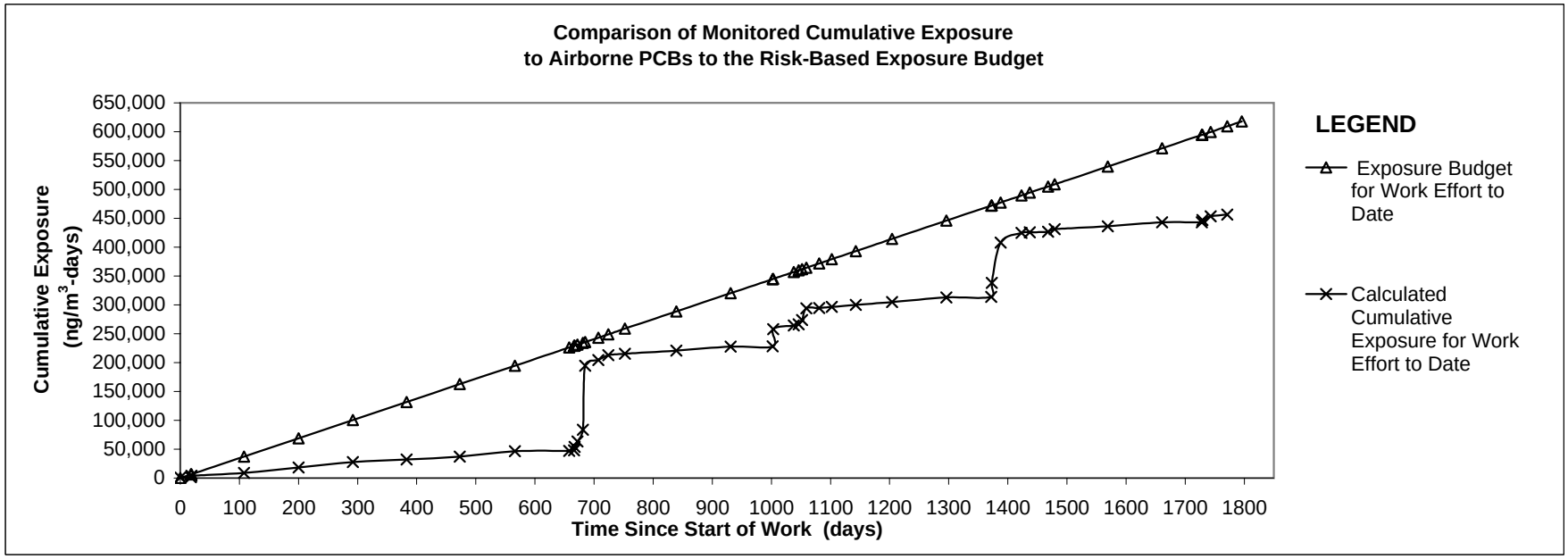
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Air Sampling Status Report

| | |
|---|---|
| **Sample Station :** | 24 Aerovox |
| **Collection Date:** | 11/30/2007 |
| **Measured PCB Concentration (ng/m$^3$):** | 67 |
| **Exposure Budget Expended During This Period:** | 12.6% |
| **Cumulative Exposure Budget Expended to Date:** | 72.3% |
| **Response Level:** | No Triggers Identified |
| **Response:** | No Response Necessary |

**Triggers:**




Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre-and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

# Air Sampling Status Report

New Bedford Harbor Superfund Site

**Station #:** 25 Cliftex
Exposure Budget Slope (EBS) = 202 nanograms per cubic meter per day (ng/m $^3$-day)

**Collection Date:** 11/30/2007

**Construction Activity:** The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

**Summary of This Sampling Period:**

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 25 Cliftex, the quarterly average ambient air PCB concentrations were used as a background concentration, which represent the quarterly baseline averages for the period of June 1999 through May 2000. These background concentrations were used to project the PCB concentrations during the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the recent inactive field season. In addition, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 25 Cliftex from August 16, 2006 (the start of dredging activities). To better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 25 Cliftex from August 7, 2007 (the start of dredging activities).

Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations at Station 25 Cliftex during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006, and the first 2006 sampling event was conducted two weeks after the start of dredging, this new variation of the PETs curve was used. Also, the concentrations were projected to be at background levels at Station 25 Cliftex on October 19, 2006, which is the day after the 2006 dredging activities were completed. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 25 Cliftex on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2006 and 2007 dredging activities. No triggers were identifed, therefore, no action is required.

| | | |
|---|---|---|
| | | |
| **Monitoring Station** | | 25 Cliftex |
| **Exposure Budget Slope** | [ng/$m^3$-day] | 202 |
| **Work Start Date** | [mm/dd/yyyy] | 11/12/2002 |
| **Projected Work End Date (Per EPA)** | [mm/dd/yyyy] | 11/10/2028 |
| | | |
| **Occupational Limit Used as Ceiling** | [ng/$m^3$] | 500,000 |
| | | |
| **TEL for Worker in Public** | [ng/$m^3$] | 50,000 |
| **NTEL for Worker in Public** | [ng/$m^3$] | 1,789 |
| **Minimum of TEL/NTEL** | [ng/$m^3$] | 1,789 |
| | | |
| **Baseline Average Concentration** | [ng/$m^3$] | 23 |
| | | |
| Notes: | | |
| TEL - Threshold Effects Exposure Limit | | |
| NTEL - Non-Threshold Effects Exposure Limit | | |
| The EPA periodically assesses this Projected Work End Date, which is subject to change. | | |

# Sample Results, Calculated Budget and Exposure Values
# 25 Cliftex Location

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 1 | 11/12/2002 | 0 | 0 | 9495 | 22 | 22.00 | 22.00 | NC | NC | NC | NC | NC | NC |
| 2 | 11/30/2002 | 18 | 18 | 9477 | 22 | 22.00 | 22.00 | 3636 | 3636 | 396.0 | 396.0 | 10.9% | 10.9% |
| 3 | 12/1/2002 | 1 | 19 | 9476 | 3.2 | 12.60 | 21.51 | 202 | 3838 | 12.6 | 408.6 | 6.2% | 10.6% |
| 4 | 2/28/2003 | 89 | 108 | 9387 | 3.2 | 3.20 | 6.42 | 17978 | 21816 | 284.8 | 693.4 | 1.6% | 3.2% |
| 5 | 5/31/2003 | 92 | 200 | 9295 | 35 | 19.10 | 12.25 | 18584 | 40400 | 1757.2 | 2,450.6 | 9.5% | 6.1% |
| 6 | 8/31/2003 | 92 | 292 | 9203 | 46 | 40.50 | 21.15 | 18584 | 58984 | 3726.0 | 6,176.6 | 20.0% | 10.5% |
| 7 | 11/30/2003 | 91 | 383 | 9112 | 22 | 34.00 | 24.21 | 18382 | 77366 | 3094.0 | 9,270.6 | 16.8% | 12.0% |
| 8 | 2/28/2004 | 90 | 473 | 9022 | 3.2 | 12.60 | 22.00 | 18180 | 95546 | 1134.0 | 10,404.6 | 6.2% | 10.9% |
| 9 | 5/31/2004 | 93 | 566 | 8929 | 35 | 19.10 | 21.52 | 18786 | 114332 | 1776.3 | 12,180.9 | 9.5% | 10.7% |
| 10 | 8/31/2004 | 92 | 658 | 8837 | 46 | 40.50 | 24.17 | 18584 | 132916 | 3726.0 | 15,906.9 | 20.0% | 12.0% |
| 11 | 9/8/2004 | 8 | 666 | 8829 | 22 | 34.00 | 24.29 | 1616 | 134532 | 272.0 | 16,178.9 | 16.8% | 12.0% |
| 12 | 9/9/2004 | 1 | 667 | 8828 | 167 | 94.50 | 24.40 | 202 | 134734 | 94.5 | 16,273.4 | 46.8% | 12.1% |
| 13 | 9/14/2004 | 5 | 672 | 8823 | 229 | 198.00 | 25.69 | 1010 | 135744 | 990.0 | 17,263.4 | 98.0% | 12.7% |
| 14 | 9/23/2004 | 9 | 681 | 8814 | 97 | 163.00 | 27.50 | 1818 | 137562 | 1467.0 | 18,730.4 | 80.7% | 13.6% |
| 15 | 9/28/2004 | 5 | 686 | 8809 | 423 | 260.00 | 29.20 | 1010 | 138572 | 1300.0 | 20,030.4 | 128.7% | 14.5% |
| 16 | 10/19/2004 | 21 | 707 | 8788 | 259 | 341.00 | 38.46 | 4242 | 142814 | 7161.0 | 27,191.4 | 168.8% | 19.0% |
| 17 | 11/15/2004 | 27 | 734 | 8761 | 61 | 160.00 | 42.93 | 5454 | 148268 | 4320.0 | 31,511.4 | 79.2% | 21.3% |
| 18 | 12/3/2004 | 18 | 752 | 8743 | 27 | 44.00 | 42.96 | 3636 | 151904 | 792.0 | 32,303.4 | 21.8% | 21.3% |
| 19 | 2/28/2005 | 87 | 839 | 8656 | 3.2 | 15.10 | 40.07 | 17574 | 169478 | 1313.7 | 33,617.1 | 7.5% | 19.8% |
| 20 | 5/31/2005 | 92 | 931 | 8564 | 35 | 19.10 | 38.00 | 18584 | 188062 | 1757.2 | 35,374.3 | 9.5% | 18.8% |
| 21 | 8/10/2005 | 71 | 1002 | 8493 | 46 | 40.50 | 38.17 | 14342 | 202404 | 2875.5 | 38,249.8 | 20.0% | 18.9% |
| 22 | 8/11/2005 | 1 | 1003 | 8492 | 103 | 74.50 | 38.21 | 202 | 202606 | 74.5 | 38,324.3 | 36.9% | 18.9% |
| 23 | 9/15/2005 | 35 | 1038 | 8457 | 58.2 | 80.60 | 39.64 | 7070 | 209676 | 2821.0 | 41,145.3 | 39.9% | 19.6% |
| 24 | 9/23/2005 | 8 | 1046 | 8449 | 35.2 | 46.70 | 39.69 | 1616 | 211292 | 373.6 | 41,518.9 | 23.1% | 19.7% |
| 25 | 9/29/2005 | 6 | 1052 | 8443 | 104 | 69.60 | 39.86 | 1212 | 212504 | 417.6 | 41,936.5 | 34.5% | 19.7% |
| 26 | 10/6/2005 | 7 | 1059 | 8436 | 251 | 177.50 | 40.77 | 1414 | 213918 | 1242.5 | 43,179.0 | 87.9% | 20.2% |
| 27 | 11/18/2005 | 43 | 1102 | 8393 | 0.12 | 125.56 | 44.08 | 8686 | 222604 | 5399.1 | 48,578.1 | 62.2% | 21.8% |
| 28 | 12/29/2005 | 41 | 1143 | 8352 | 10.9 | 5.51 | 42.70 | 8282 | 230886 | 225.9 | 48,804.0 | 2.7% | 21.1% |
| 29 | 2/28/2006 | 61 | 1204 | 8291 | 3.2 | 7.05 | 40.89 | 12322 | 243208 | 430.1 | 49,234.0 | 3.5% | 20.2% |
| 30 | 5/31/2006 | 92 | 1296 | 8199 | 35 | 19.10 | 39.35 | 18584 | 261792 | 1757.2 | 50,991.2 | 9.5% | 19.5% |
| 31 | 8/15/2006 | 76 | 1372 | 8123 | 46 | 40.50 | 39.41 | 15352 | 277144 | 3078.0 | 54,069.2 | 20.0% | 19.5% |
| 32 | 8/16/2006 | 1 | 1373 | 8122 | 176 | 111.00 | 39.46 | 202 | 277346 | 111.0 | 54,180.2 | 55.0% | 19.5% |
| 33 | 8/31/2006 | 15 | 1388 | 8107 | 176 | 176.00 | 40.94 | 3030 | 280376 | 2640.0 | 56,820.2 | 87.1% | 20.3% |
| 34 | 10/5/2006 | 35 | 1423 | 8072 | 451 | 313.50 | 47.64 | 7070 | 287446 | 10972.5 | 67,792.7 | 155.2% | 23.6% |
| 35 | 10/19/2006 | 14 | 1437 | 8058 | 0.14 | 225.57 | 49.37 | 2828 | 290274 | 3158.0 | 70,950.7 | 111.7% | 24.4% |
| 36 | 11/19/2006 | 31 | 1468 | 8027 | 0.14 | 0.14 | 48.33 | 6262 | 296536 | 4.3 | 70,955.1 | 0.1% | 23.9% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Sample Results, Calculated Budget and Exposure Values
# 25 Cliftex Location

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 37 | 11/30/2006 | 11 | 1479 | 8016 | 22 | 11.07 | 48.06 | 2222 | 298758 | 121.8 | 71,076.8 | 5.5% | 23.8% |
| 38 | 2/28/2007 | 90 | 1569 | 7926 | 3.2 | 12.60 | 46.02 | 18180 | 316938 | 1134.0 | 72,210.8 | 6.2% | 22.8% |
| 39 | 5/31/2007 | 92 | 1661 | 7834 | 35 | 19.10 | 44.53 | 18584 | 335522 | 1757.2 | 73,968.0 | 9.5% | 22.0% |
| 40 | 8/6/2007 | 67 | 1728 | 7767 | 46 | 40.50 | 44.38 | 13534 | 349056 | 2713.5 | 76,681.5 | 20.0% | 22.0% |
| 41 | 8/7/2007 | 1 | 1729 | 7766 | 147 | 96.50 | 44.41 | 202 | 349258 | 96.5 | 76,778.0 | 47.8% | 22.0% |
| 42 | 8/21/2007 | 14 | 1743 | 7752 | 147 | 147.00 | 45.23 | 2828 | 352086 | 2058.0 | 78,836.0 | 72.8% | 22.4% |
| 43 | 9/18/2007 | 28 | 1771 | 7724 | 120 | 133.50 | 46.63 | 5656 | 357742 | 3738.0 | 82,574.0 | 66.1% | 23.1% |
| 44 | 10/13/2007 | 25 | 1796 | 7699 | 22 | 71.00 | 46.96 | 5050 | 362792 | 1775.0 | 84,349.0 | 35.1% | 23.2% |
| 45 | 11/9/2007 | 27 | 1823 | 7672 | 20.2 | 21.10 | 46.58 | 5454 | 368246 | 569.7 | 84,918.7 | 10.4% | 23.1% |
| 46 | 11/30/2007 | 21 | 1844 | 7651 | 22 | 21.10 | 46.29 | 4242 | 372488 | 443.1 | 85,361.8 | 10.4% | 22.9% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

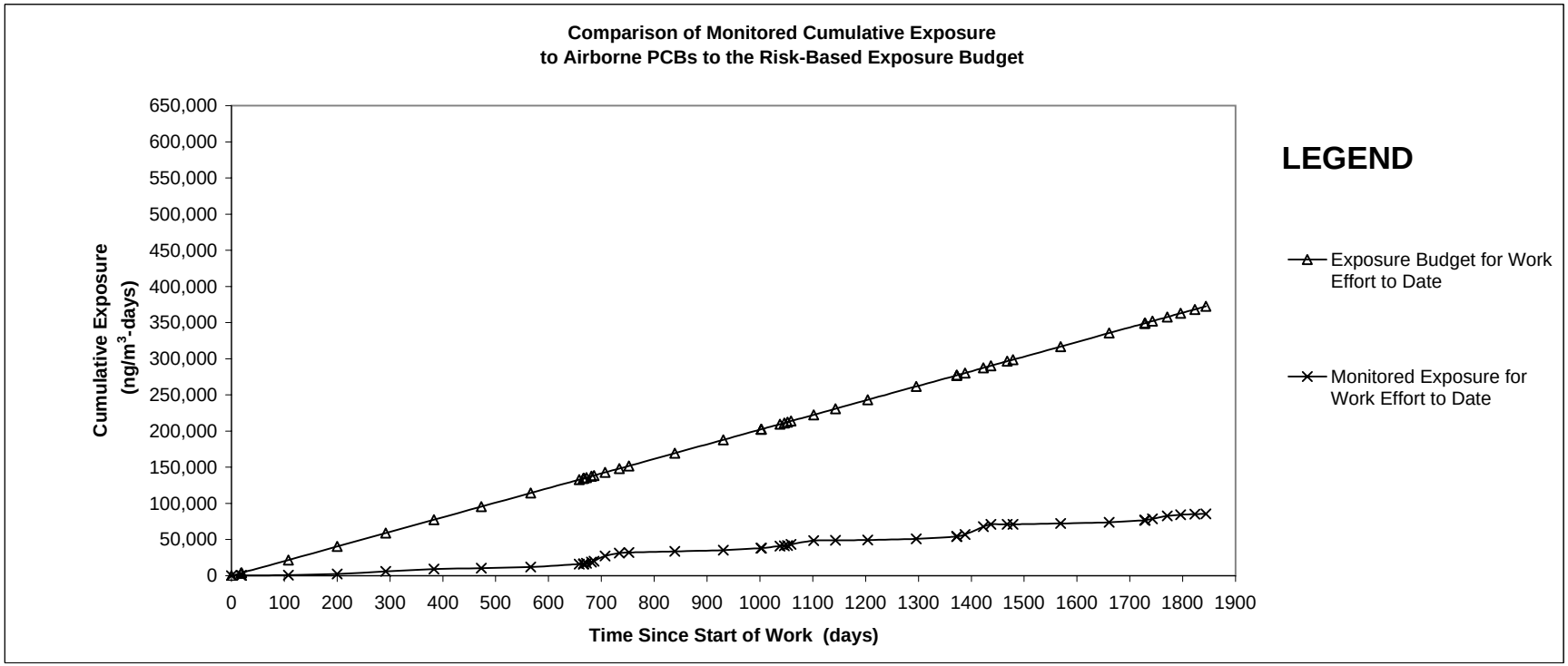
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Air Sampling Status Report

| | |
|---|---|
| **Sample Station :** | 25 Cliftex |
| **Collection Date:** | 11/30/2007 |
| **Measured PCB Concentration (ng/m$^3$):** | 22 |
| **Exposure Budget Expended During This Period:** | 10.4% |
| **Cumulative Exposure Budget Expended to Date:** | 22.9% |
| **Response Level:** | No Triggers Identified |
| **Response:** | No Response Necessary |

**Triggers:**




Notes:
a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

# Air Sampling Status

New Bedford Harbor Superfund Site

**Station #:** 42 NSTAR N
Exposure Budget Slope (EBS) = 202 (ng/$m^3$-day)

**Collection Date:** 11/30/2007

**Construction Activity:** The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

**Summary of This Sampling Period:**

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 42 NSTAR N, the quarterly average ambient air PCB concentrations were used as a background concentration, which represent the quarterly baseline averages from Station 23 - Achusnet Substation, for the period of June 1999 through May 2000. These background concentrations were used to project the PCB concentrations during the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, 12/28/05 through 8/15/07, and from 11/19/06 through 8/6/07 to close the recent inactive field season. In addition, to better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 42 NSTAR from August 7, 2007 (the start of dredging activities).

Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations present at Station 42 during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006 and 2007, this new variation of the PETs curve was used for 2007. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 42 NSTAR on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2007 dredging activities. No triggers were identified, therefore, no action is necessary.

| | | |
|---|---|---|
| | | |
| **Monitoring Station** | | 42 NSTAR N |
| **Exposure Budget Slope** | [ng/$m^3$-day] | 202 |
| **Work Start Date** | [mm/dd/yyyy] | 11/12/2002 |
| **Projected Work End Date** | [mm/dd/yyyy] | 11/10/2028 |
| | | |
| **Occupational Limit Used as Ceiling** | [ng/$m^3$] | 500,000 |
| | | |
| **TEL for Worker in Public** | [ng/$m^3$] | 50,000 |
| **NTEL for Worker in Public** | [ng/$m^3$] | 1,789 |
| **Minimum of TEL/NTEL** | [ng/$m^3$] | 1,789 |
| | | |
| **Baseline Average Concentration** | [ng/$m^3$] | 23 |

# Sample Results, Calculated Budget and Exposure Values
# 42 NSTAR North

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 1 | 11/12/2002 | 0 | 0 | 9495 | 24 | 24.00 | 24.00 | NC | NC | NC | NC | NC | NC |
| 2 | 11/30/2002 | 18 | 18 | 9477 | 24 | 24.00 | 24.00 | 3636 | 3636 | 432.0 | 432.0 | 11.9% | 11.9% |
| 3 | 12/1/2002 | 1 | 19 | 9476 | 9.9 | 16.95 | 23.63 | 202 | 3838 | 17.0 | 449.0 | 8.4% | 11.7% |
| 4 | 2/28/2003 | 89 | 108 | 9387 | 9.9 | 9.90 | 12.32 | 17978 | 21816 | 881.1 | 1,330.1 | 4.9% | 6.1% |
| 5 | 5/31/2003 | 92 | 200 | 9295 | 29 | 19.45 | 15.60 | 18584 | 40400 | 1789.4 | 3,119.5 | 9.6% | 7.7% |
| 6 | 8/31/2003 | 92 | 292 | 9203 | 31 | 30.00 | 20.14 | 18584 | 58984 | 2760.0 | 5,879.5 | 14.9% | 10.0% |
| 7 | 11/30/2003 | 91 | 383 | 9112 | 24 | 27.50 | 21.88 | 18382 | 77366 | 2502.5 | 8,382.0 | 13.6% | 10.8% |
| 8 | 2/28/2004 | 90 | 473 | 9022 | 9.9 | 16.95 | 20.95 | 18180 | 95546 | 1525.5 | 9,907.5 | 8.4% | 10.4% |
| 9 | 5/31/2004 | 93 | 566 | 8929 | 29 | 19.45 | 20.70 | 18786 | 114332 | 1808.9 | 11,716.3 | 9.6% | 10.2% |
| 10 | 8/31/2004 | 92 | 658 | 8837 | 31 | 30.00 | 22.00 | 18584 | 132916 | 2760.0 | 14,476.3 | 14.9% | 10.9% |
| 11 | 11/4/2004 | 65 | 723 | 8772 | 24 | 27.50 | 22.49 | 13130 | 146046 | 1787.5 | 16,263.8 | 13.6% | 11.1% |
| 12 | 11/5/2004 | 1 | 724 | 8771 | 73 | 48.50 | 22.53 | 202 | 146248 | 48.5 | 16,312.3 | 24.0% | 11.2% |
| 13 | 12/3/2004 | 28 | 752 | 8743 | 40 | 56.50 | 23.80 | 5656 | 151904 | 1582.0 | 17,894.3 | 28.0% | 11.8% |
| 14 | 2/28/2005 | 87 | 839 | 8656 | 9.9 | 24.95 | 23.92 | 17574 | 169478 | 2170.7 | 20,065.0 | 12.4% | 11.8% |
| 15 | 5/31/2005 | 92 | 931 | 8564 | 29 | 19.45 | 23.47 | 18584 | 188062 | 1789.4 | 21,854.4 | 9.6% | 11.6% |
| 16 | 8/10/2005 | 71 | 1002 | 8493 | 31 | 30.00 | 23.94 | 14342 | 202404 | 2130.0 | 23,984.4 | 14.9% | 11.8% |
| 17 | 8/11/2005 | 1 | 1003 | 8492 | 25.9 | 28.45 | 23.94 | 202 | 202606 | 28.5 | 24,012.8 | 14.1% | 11.9% |
| 18 | 9/15/2005 | 35 | 1038 | 8457 | 22.5 | 24.20 | 23.95 | 7070 | 209676 | 847.0 | 24,859.8 | 12.0% | 11.9% |
| 19 | 9/23/2005 | 8 | 1046 | 8449 | 83.3 | 52.90 | 24.17 | 1616 | 211292 | 423.2 | 25,283.0 | 26.2% | 12.0% |
| 20 | 9/29/2005 | 6 | 1052 | 8443 | 5.28 | 44.29 | 24.29 | 1212 | 212504 | 265.7 | 25,548.7 | 21.9% | 12.0% |
| 21 | 10/6/2005 | 7 | 1059 | 8436 | 119 | 62.14 | 24.54 | 1414 | 213918 | 435.0 | 25,983.7 | 30.8% | 12.1% |
| 22 | 10/28/2005 | 22 | 1081 | 8414 | 32.3 | 75.65 | 25.58 | 4444 | 218362 | 1664.3 | 27,648.0 | 37.5% | 12.7% |
| 23 | 11/18/2005 | 21 | 1102 | 8393 | 64.1 | 48.20 | 26.01 | 4242 | 222604 | 1012.2 | 28,660.2 | 23.9% | 12.9% |
| 24 | 12/29/2005 | 41 | 1143 | 8352 | 21.4 | 42.75 | 26.61 | 8282 | 230886 | 1752.8 | 30,413.0 | 21.2% | 13.2% |
| 25 | 2/28/2006 | 61 | 1204 | 8291 | 9.9 | 15.65 | 26.05 | 12322 | 243208 | 954.7 | 31,367.6 | 7.7% | 12.9% |
| 26 | 5/31/2006 | 92 | 1296 | 8199 | 29 | 19.45 | 25.58 | 18584 | 261792 | 1789.4 | 33,157.0 | 9.6% | 12.7% |
| 27 | 8/31/2006 | 92 | 1388 | 8107 | 31 | 30.00 | 25.88 | 18584 | 280376 | 2760.0 | 35,917.0 | 14.9% | 12.8% |
| 28 | 11/30/2006 | 91 | 1479 | 8016 | 24 | 27.50 | 25.98 | 18382 | 298758 | 2502.5 | 38,419.5 | 13.6% | 12.9% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Sample Results, Calculated Budget and Exposure Values
# 42 NSTAR North

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 29 | 2/28/2007 | 90 | 1569 | 7926 | 9.9 | 16.95 | 25.46 | 18180 | 316938 | 1525.5 | 39,945.0 | 8.4% | 12.6% |
| 30 | 5/31/2007 | 92 | 1661 | 7834 | 29 | 19.45 | 25.13 | 18584 | 335522 | 1789.4 | 41,734.4 | 9.6% | 12.4% |
| 31 | 8/6/2007 | 67 | 1728 | 7767 | 31 | 30.00 | 25.32 | 13534 | 349056 | 2010.0 | 43,744.4 | 14.9% | 12.5% |
| 32 | 8/7/2007 | 1 | 1729 | 7766 | 19.2 | 25.10 | 25.31 | 202 | 349258 | 25.1 | 43,769.5 | 12.4% | 12.5% |
| 33 | 8/21/2007 | 14 | 1743 | 7752 | 19.2 | 19.20 | 25.27 | 2828 | 352086 | 268.8 | 44,038.3 | 9.5% | 12.5% |
| 34 | 9/18/2007 | 28 | 1771 | 7724 | 16.3 | 17.75 | 25.15 | 5656 | 357742 | 497.0 | 44,535.3 | 8.8% | 12.4% |
| 35 | 10/13/2007 | 25 | 1796 | 7699 | 24 | 20.15 | 25.08 | 5050 | 362792 | 503.8 | 45,039.1 | 10.0% | 12.4% |
| 36 | 11/9/2007 | 27 | 1823 | 7672 | 15.7 | 19.85 | 25.00 | 5454 | 368246 | 536.0 | 45,575.0 | 9.8% | 12.4% |
| 37 | 11/30/2007 | 21 | 1844 | 7651 | 24 | 19.85 | 24.94 | 4242 | 372488 | 416.9 | 45,991.9 | 9.8% | 12.3% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

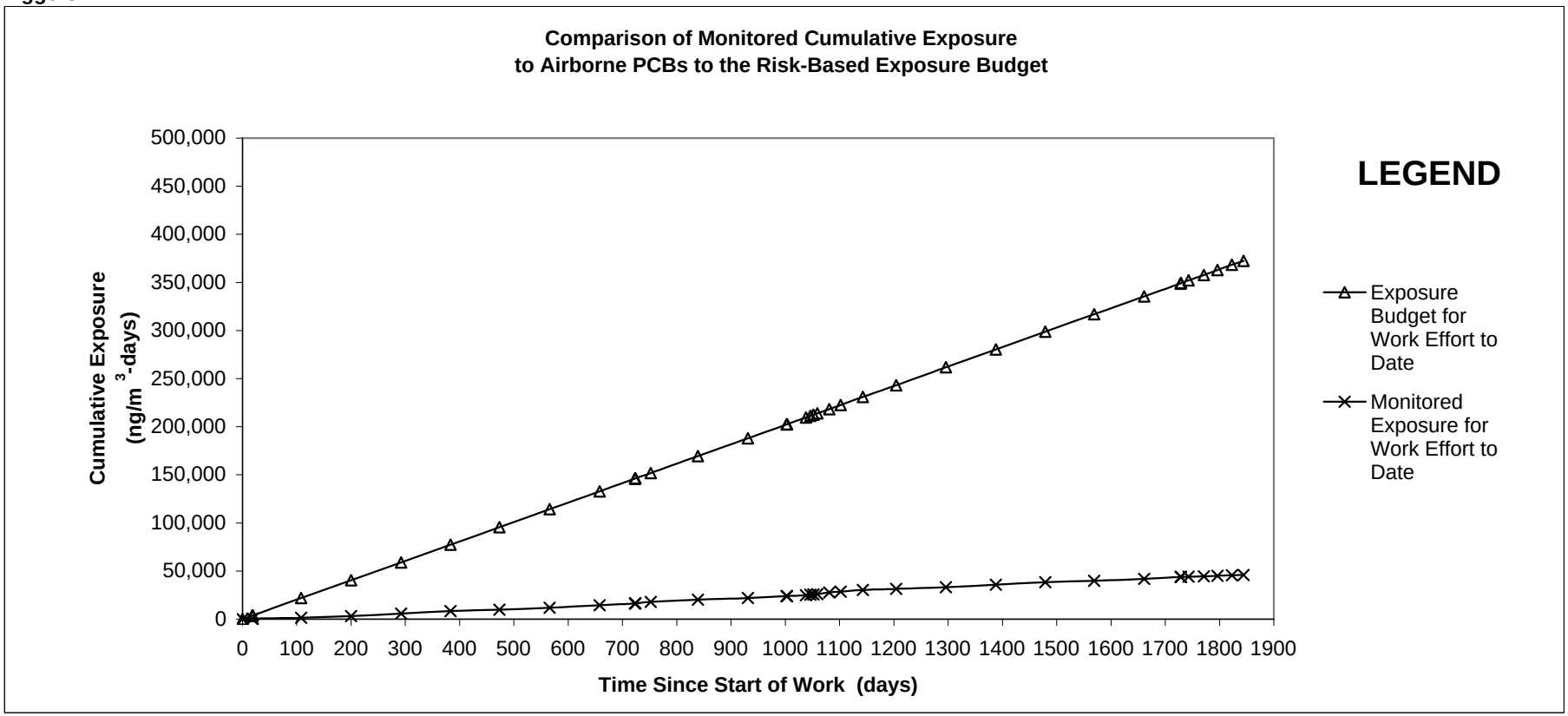
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Air Sampling Status Report

| | |
|---|---|
| **Sample Station :** | 42 NSTAR N |
| **Collection Date:** | 11/30/2007 |
| **Measured PCB Concentration (ng/m$^3$):** | 24 |
| **Exposure Budget Expended During This Period:** | 9.8% |
| **Cumulative Exposure Budget Expended to Date:** | 12.3% |
| **Response Level:** | No Triggers Identified |
| **Response:** | No Response Necessary |

**Triggers:**




Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).

b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).

c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).

d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

# Air Sampling Status Report

New Bedford Harbor Superfund Site

**Station #:** 46 Coffin Avenue
Exposure Budget Slope (EBS) = 202 nanograms per cubic meter per day (ng/$m^3$-day)

**Collection Date:** 11/30/2007

**Construction Activity:** The 2006 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

**Summary of This Sampling Period:**

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 46 Coffin Ave., the quarterly ambient air PCB concentrations were used for background concentrations. These values represent the quarterly baseline averages from Stations 21 and 25 - Cliftex, for the period of June 1999 through May 2000. These background concentrations were used to project the PCB concentrations for the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the inactive field season. In addition, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 46 Coffin Ave from August 16, 2006 (the start of dredging activities). To better simulate the 2007 dredging season, the ambient air concentrations from the August 21, 2007 sampling event were used as the concentrations detected at Station 46 Coffin Avenue from August 7, 2007

(the start of dredging activities). Coordinating the sampling data with the start of dredging better simulates the ambient air PCB concentrations at Station 46 Coffin Avenue during the active dredging season. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since monthly sampling was conducted in 2006, and the first 2006 sampling event was conducted two weeks after the start of dredging, this new variation of the PETs curve was used. Also, the PCB concentrations were projected to be at background levels at Station 46 Coffin Avenue on October 19, 2006, which is the day after the 2006 dredging activities were completed. For the 2007 season, the PCB concentrations were projected to be at background levels at Station 46 Coffin Avenue on October 13, 2007, which is the day after the 2007 dredging activities were completed. These changes in the background concentrations and associated active dredging concentrations better match the actual 2006 and 2007 dredging activities. No triggers were identified, therefore, no action is required.

| | | |
|---|---|---|
| | | |
| | | |
| **Monitoring Station** | | 46 Coffin Ave |
| **Exposure Budget Slope** | [ng/m$^3$-day] | 202 |
| **Work Start Date** | [mm/dd/yyyy] | 11/12/2002 |
| **Projected Work End Date (Per EPA)** | [mm/dd/yyyy] | 11/10/2028 |
| | | |
| **Occupational Limit Used as Ceiling** | [ng/m$^3$] | 500,000 |
| | | |
| **TEL for Worker in Public** | [ng/m$^3$] | 50,000 |
| **NTEL for Worker in Public** | [ng/m$^3$] | 1,789 |
| **Minimum of TEL/NTEL** | [ng/m$^3$] | 1,789 |
| | | |
| **Baseline Average Concentration** | [ng/m$^3$] | 26.1 |
| | | |
| | | |
| Notes: | | |
| TEL - Threshold Effects Exposure Limit | | |
| NTEL - Non-Threshold Effects Exposure Limit | | |
| The EPA periodically assesses this Projected Work End Date, which is subject to change. | | |

# Sample Results, Calculated Budget and Exposure Values
# 46 Coffin Avenue

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 1 | 11/12/2002 | 0 | 0 | 9495 | 22 | 22.00 | 22.00 | NC | NC | NC | NC | NC | NC |
| 2 | 11/30/2002 | 18 | 18 | 9477 | 22 | 22.00 | 22.00 | 3636 | 3636 | 396.0 | 396.0 | 10.9% | 10.9% |
| 3 | 12/1/2002 | 1 | 19 | 9476 | 3.2 | 12.60 | 21.51 | 202 | 3838 | 12.6 | 408.6 | 6.2% | 10.6% |
| 4 | 2/28/2003 | 89 | 108 | 9387 | 3.2 | 3.20 | 6.42 | 17978 | 21816 | 284.8 | 693.4 | 1.6% | 3.2% |
| 5 | 5/31/2003 | 92 | 200 | 9295 | 35 | 19.10 | 12.25 | 18584 | 40400 | 1757.2 | 2,450.6 | 9.5% | 6.1% |
| 6 | 8/31/2003 | 92 | 292 | 9203 | 46 | 40.50 | 21.15 | 18584 | 58984 | 3726.0 | 6,176.6 | 20.0% | 10.5% |
| 7 | 11/30/2003 | 91 | 383 | 9112 | 22 | 34.00 | 24.21 | 18382 | 77366 | 3094.0 | 9,270.6 | 16.8% | 12.0% |
| 8 | 2/28/2004 | 90 | 473 | 9022 | 3.2 | 12.60 | 22.00 | 18180 | 95546 | 1134.0 | 10,404.6 | 6.2% | 10.9% |
| 9 | 5/31/2004 | 93 | 566 | 8929 | 35 | 19.10 | 21.52 | 18786 | 114332 | 1776.3 | 12,180.9 | 9.5% | 10.7% |
| 10 | 8/31/2004 | 92 | 658 | 8837 | 46 | 40.50 | 24.17 | 18584 | 132916 | 3726.0 | 15,906.9 | 20.0% | 12.0% |
| 11 | 9/8/2004 | 8 | 666 | 8829 | 22 | 34.00 | 24.29 | 1616 | 134532 | 272.0 | 16,178.9 | 16.8% | 12.0% |
| 12 | 9/9/2004 | 1 | 667 | 8828 | 145 | 83.50 | 24.38 | 202 | 134734 | 83.5 | 16,262.4 | 41.3% | 12.1% |
| 13 | 9/14/2004 | 5 | 672 | 8823 | 48 | 96.50 | 24.92 | 1010 | 135744 | 482.5 | 16,744.9 | 47.8% | 12.3% |
| 14 | 9/23/2004 | 9 | 681 | 8814 | 5 | 26.50 | 24.94 | 1818 | 137562 | 238.5 | 16,983.4 | 13.1% | 12.3% |
| 15 | 9/28/2004 | 5 | 686 | 8809 | 342 | 173.50 | 26.02 | 1010 | 138572 | 867.5 | 17,850.9 | 85.9% | 12.9% |
| 16 | 10/19/2004 | 21 | 707 | 8788 | 36 | 189.00 | 30.86 | 4242 | 142814 | 3969.0 | 21,819.9 | 93.6% | 15.3% |
| 17 | 11/5/2004 | 17 | 724 | 8771 | 80 | 58.00 | 31.50 | 3434 | 146248 | 986.0 | 22,805.9 | 28.7% | 15.6% |
| 18 | 12/3/2004 | 28 | 752 | 8743 | 15 | 47.50 | 32.10 | 5656 | 151904 | 1330.0 | 24,135.9 | 23.5% | 15.9% |
| 19 | 2/28/2005 | 87 | 839 | 8656 | 3.2 | 9.10 | 29.71 | 17574 | 169478 | 791.7 | 24,927.6 | 4.5% | 14.7% |
| 20 | 5/31/2005 | 92 | 931 | 8564 | 35 | 19.10 | 28.66 | 18584 | 188062 | 1757.2 | 26,684.8 | 9.5% | 14.2% |
| 21 | 8/10/2005 | 71 | 1002 | 8493 | 46 | 40.50 | 29.50 | 14342 | 202404 | 2875.5 | 29,560.3 | 20.0% | 14.6% |
| 22 | 8/11/2005 | 1 | 1003 | 8492 | 37.2 | 41.60 | 29.51 | 202 | 202606 | 41.6 | 29,601.9 | 20.6% | 14.6% |
| 23 | 9/15/2005 | 35 | 1038 | 8457 | 99.8 | 68.50 | 30.83 | 7070 | 209676 | 2397.5 | 31,999.4 | 33.9% | 15.3% |
| 24 | 9/23/2005 | 8 | 1046 | 8449 | 115 | 107.40 | 31.41 | 1616 | 211292 | 859.2 | 32,858.6 | 53.2% | 15.6% |
| 25 | 9/29/2005 | 6 | 1052 | 8443 | 124 | 119.50 | 31.92 | 1212 | 212504 | 717.0 | 33,575.6 | 59.2% | 15.8% |
| 26 | 10/6/2005 | 7 | 1059 | 8436 | 130 | 127.00 | 32.54 | 1414 | 213918 | 889.0 | 34,464.6 | 62.9% | 16.1% |
| 27 | 10/28/2005 | 22 | 1081 | 8414 | 2.06 | 66.03 | 33.23 | 4444 | 218362 | 1452.7 | 35,917.3 | 32.7% | 16.4% |
| 28 | 11/18/2005 | 21 | 1102 | 8393 | 0.14 | 1.10 | 32.61 | 4242 | 222604 | 23.1 | 35,940.4 | 0.5% | 16.1% |
| 29 | 12/29/2005 | 41 | 1143 | 8352 | 65.1 | 32.62 | 32.61 | 8282 | 230886 | 1337.4 | 37,277.8 | 16.1% | 16.1% |
| 30 | 2/28/2006 | 61 | 1204 | 8291 | 3.2 | 34.15 | 32.69 | 12322 | 243208 | 2083.2 | 39,360.9 | 16.9% | 16.2% |
| 31 | 5/31/2006 | 92 | 1296 | 8199 | 35 | 19.10 | 31.73 | 18584 | 261792 | 1757.2 | 41,118.1 | 9.5% | 15.7% |
| 32 | 8/15/2006 | 76 | 1372 | 8123 | 46 | 40.50 | 32.21 | 15352 | 277144 | 3078.0 | 44,196.1 | 20.0% | 15.9% |
| 33 | 8/16/2006 | 1 | 1373 | 8122 | 70.4 | 58.20 | 32.23 | 202 | 277346 | 58.2 | 44,254.3 | 28.8% | 16.0% |
| 34 | 8/31/2006 | 15 | 1388 | 8107 | 70.4 | 70.40 | 32.64 | 3030 | 280376 | 1056.0 | 45,310.3 | 34.9% | 16.2% |
| 35 | 10/5/2006 | 35 | 1423 | 8072 | 108 | 89.20 | 34.04 | 7070 | 287446 | 3122.0 | 48,432.3 | 44.2% | 16.8% |
| 36 | 10/19/2006 | 14 | 1437 | 8058 | 4.05 | 56.03 | 34.25 | 2828 | 290274 | 784.4 | 49,216.7 | 27.7% | 17.0% |
| 37 | 11/19/2006 | 31 | 1468 | 8027 | 4.05 | 4.05 | 33.61 | 6262 | 296536 | 125.6 | 49,342.2 | 2.0% | 16.6% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Sample Results, Calculated Budget and Exposure Values
# 46 Coffin Avenue

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 38 | 11/30/2006 | 11 | 1479 | 8016 | 22 | 13.03 | 33.46 | 2222 | 298758 | 143.3 | 49,485.5 | 6.4% | 16.6% |
| 39 | 2/28/2007 | 90 | 1569 | 7926 | 3.2 | 12.60 | 32.26 | 18180 | 316938 | 1134.0 | 50,619.5 | 6.2% | 16.0% |
| 40 | 5/31/2007 | 92 | 1661 | 7834 | 35 | 19.10 | 31.53 | 18584 | 335522 | 1757.2 | 52,376.7 | 9.5% | 15.6% |
| 41 | 8/6/2007 | 67 | 1728 | 7767 | 46 | 40.50 | 31.88 | 13534 | 349056 | 2713.5 | 55,090.2 | 20.0% | 15.8% |
| 42 | 8/7/2007 | 1 | 1729 | 7766 | 36.1 | 41.05 | 31.89 | 202 | 349258 | 41.1 | 55,131.3 | 20.3% | 15.8% |
| 43 | 8/21/2007 | 14 | 1743 | 7752 | 36.1 | 36.10 | 31.92 | 2828 | 352086 | 505.4 | 55,636.7 | 17.9% | 15.8% |
| 44 | 9/18/2007 | 28 | 1771 | 7724 | 21.4 | 28.75 | 31.87 | 5656 | 357742 | 805.0 | 56,441.7 | 14.2% | 15.8% |
| 45 | 10/13/2007 | 25 | 1796 | 7699 | 22 | 21.70 | 31.73 | 5050 | 362792 | 542.5 | 56,984.2 | 10.7% | 15.7% |
| 46 | 11/9/2007 | 27 | 1823 | 7672 | 1.86 | 11.93 | 31.44 | 5454 | 368246 | 322.1 | 57,306.3 | 5.9% | 15.6% |
| 47 | 11/30/2007 | 21 | 1844 | 7651 | 22 | 11.93 | 31.21 | 4242 | 372488 | 250.5 | 57,556.8 | 5.9% | 15.5% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

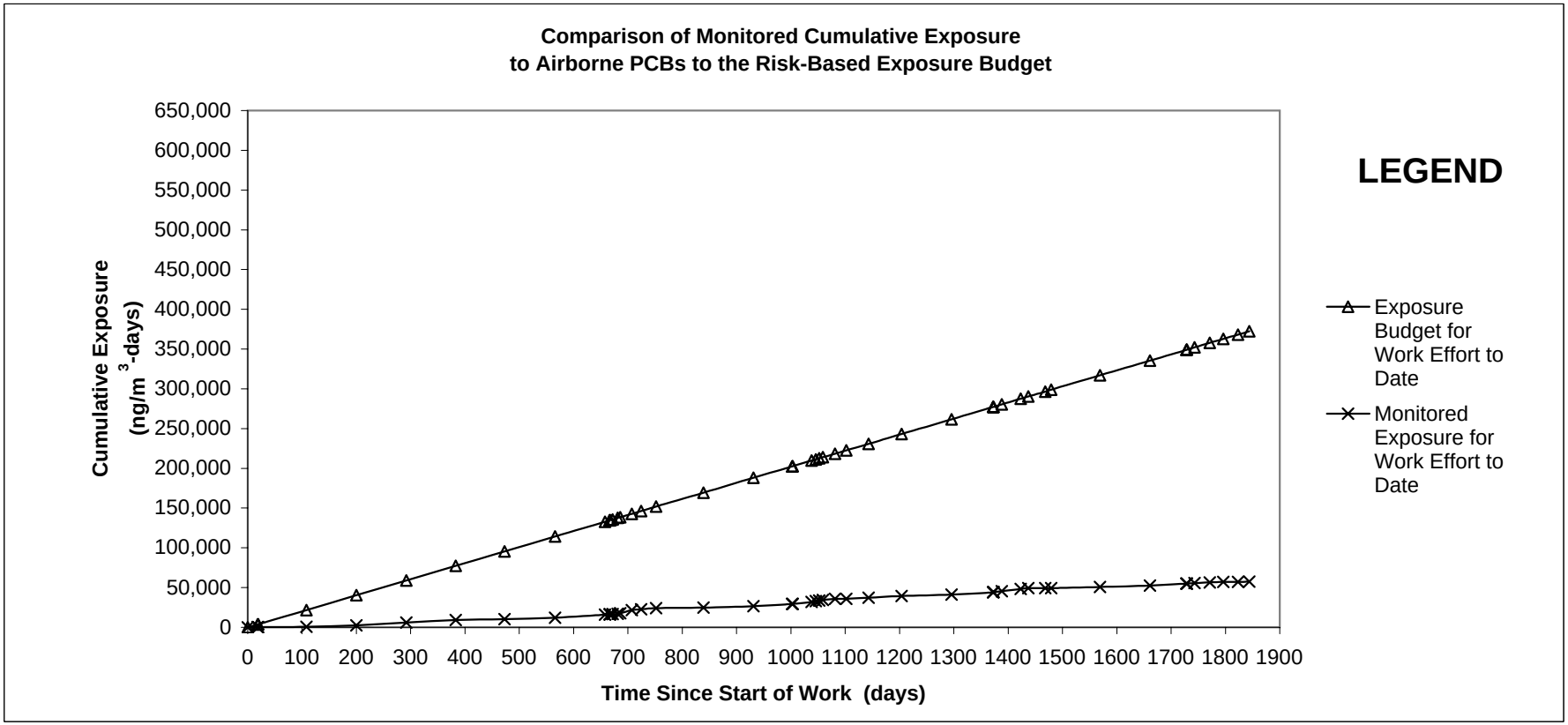
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Air Sampling Status Report

| | |
|---|---|
| **Sample Station :** | 46 Coffin Ave |
| **Collection Date:** | 11/30/2007 |
| **Measured PCB Concentration (ng/m$^3$):** | 22 |
| **Exposure Budget Expended During This Period:** | 5.9% |
| **Cumulative Exposure Budget Expended to Date:** | 15.5% |
| **Response Level:** | No Triggers Identified |
| **Response:** | No Response Necessary |

**Triggers:**




Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005.
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

# Air Sampling Status Report

New Bedford Harbor Superfund Site

**Station #:** 49 Area C Downwind
Exposure Budget Slope (EBS) = 202 nanograms per cubic meter per day (ng/m $^3$-day)

**Collection Date:** 11/30/2007

**Construction Activity:** The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. For Station 49 Area C Downwind, the quarterly average ambient air PCB concentrations were used for background. These represent the average quarterly baseline averages from Station 26 - Sawyer Street, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04, for the period from 12/4/04 through 8/10/05, from 12/28/05 through 8/15/06, and from 11/19/06 through 8/6/07 to close the recent inactive field season. For the December 2005 sampling event, based on wind direction for that day, the results from Station 47 were used to represent Area C downgradient air PCB concentrations. In 2006 and 2007, during each sampling event, ambient air data was collected from only one air sampling station at Area C. The location was selected based upon the predicted wind direction for that sampling event and was placed along the downwind portion of Area C.

Please refer to Table F-1 for the Area C stations used during the 2006 and 2007 sampling events. For the first month of the 2004 and 2005 seasons, the sampling was conducted on a weekly basis. However, since 2006, the active field season sampling has been conducted on a monthly basis. In addition, since the 2006 and 2007 first sampling events were conducted about two weeks after the start of dredging, a new variation of the PETs curve was used. To better simulate the 2006 dredging season, the sambient air concentrations from the August 31, 2006 sampling event were used as the concentrations detected at Station 47 from August 16, 2006 (start of dredging activities). For the 2007 dredge season, the August 21, 2007 sampling event was used as the concentrations detected downwind at Area C from August 7, 2007 (the start of dredging activities). Also, the background concentrations were used as the PCB concentration at Area C on October 19, 2006, which is the day after the 2006 dredging activities were completed.

For the 2007 season, the concentrations were projected to be at background levels at Area C from October 13, 2007, (the day after dredging activities were completed). Coordinating the sampling date with the start of dredging better simulates the ambient air PCB concentrations at Area C during active dredging season. No triggers were identified, therefore, no action is necessary.

| | | |
|---|---|---|
| | | |
| | | |
| **Monitoring Station** | | 49 Area C Downwind |
| **Exposure Budget Slope** | [ng/m$^3$-day] | 202 |
| **Work Start Date** | [mm/dd/yyyy] | 11/12/2002 |
| **Projected Work End Date (Per EPA)** | [mm/dd/yyyy] | 11/10/2028 |
| | | |
| **Occupational Limit Used as Ceiling** | [ng/m$^3$] | 500,000 |
| | | |
| **TEL for Worker in Public** | [ng/m$^3$] | 50,000 |
| **NTEL for Worker in Public** | [ng/m$^3$] | 1,789 |
| **Minimum of TEL/NTEL** | [ng/m$^3$] | 1,789 |
| | | |
| **Baseline Average Concentration** | [ng/m$^3$] | 56 |
| | | |
| | | |
| Notes: | | |
| TEL - Threshold Effects Exposure Limit | | |
| NTEL - Non-Threshold Effects Exposure Limit | | |
| The EPA periodically assesses this Projected Work End Date, which is subject to change. | | |

# Sample Results, Calculated Budget and Exposure Values
# 49 Area C Downwind

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 1 | 11/12/2002 | 0 | 0 | 9495 | 43 | 43.00 | 43.00 | NC | NC | NC | NC | NC | NC |
| 2 | 11/30/2002 | 18 | 18 | 9477 | 43 | 43.00 | 43.00 | 3636 | 3636 | 774.0 | 774.0 | 21.3% | 21.3% |
| 3 | 12/1/2002 | 1 | 19 | 9476 | 89 | 66.00 | 44.21 | 202 | 3838 | 66.0 | 840.0 | 32.7% | 21.9% |
| 4 | 2/28/2003 | 89 | 108 | 9387 | 89 | 89.00 | 81.12 | 17978 | 21816 | 7921.0 | 8,761.0 | 44.1% | 40.2% |
| 5 | 5/31/2003 | 92 | 200 | 9295 | 61 | 75.00 | 78.31 | 18584 | 40400 | 6900.0 | 15,661.0 | 37.1% | 38.8% |
| 6 | 8/31/2003 | 92 | 292 | 9203 | 33 | 47.00 | 68.44 | 18584 | 58984 | 4324.0 | 19,985.0 | 23.3% | 33.9% |
| 7 | 11/30/2003 | 91 | 383 | 9112 | 43 | 38.00 | 61.21 | 18382 | 77366 | 3458.0 | 23,443.0 | 18.8% | 30.3% |
| 8 | 2/28/2004 | 90 | 473 | 9022 | 89 | 66.00 | 62.12 | 18180 | 95546 | 5940.0 | 29,383.0 | 32.7% | 30.8% |
| 9 | 5/31/2004 | 93 | 566 | 8929 | 61 | 75.00 | 64.24 | 18786 | 114332 | 6975.0 | 36,358.0 | 37.1% | 31.8% |
| 10 | 8/31/2004 | 92 | 658 | 8837 | 33 | 47.00 | 61.83 | 18584 | 132916 | 4324.0 | 40,682.0 | 23.3% | 30.6% |
| 11 | 9/8/2004 | 8 | 666 | 8829 | 43 | 38.00 | 61.54 | 1616 | 134532 | 304.0 | 40,986.0 | 18.8% | 30.5% |
| 12 | 9/9/2004 | 1 | 667 | 8828 | 56 | 49.50 | 61.52 | 202 | 134734 | 49.5 | 41,035.5 | 24.5% | 30.5% |
| 13 | 9/14/2004 | 5 | 672 | 8823 | 86 | 71.00 | 61.59 | 1010 | 135744 | 355.0 | 41,390.5 | 35.1% | 30.5% |
| 14 | 9/23/2004 | 9 | 681 | 8814 | 17 | 51.50 | 61.46 | 1818 | 137562 | 463.5 | 41,854.0 | 25.5% | 30.4% |
| 15 | 9/28/2004 | 5 | 686 | 8809 | 207 | 112.00 | 61.83 | 1010 | 138572 | 560.0 | 42,414.0 | 55.4% | 30.6% |
| 16 | 10/19/2004 | 21 | 707 | 8788 | 66 | 136.50 | 64.05 | 4242 | 142814 | 2866.5 | 45,280.5 | 67.6% | 31.7% |
| 17 | 11/5/2004 | 17 | 724 | 8771 | 28 | 47.00 | 63.65 | 3434 | 146248 | 799.0 | 46,079.5 | 23.3% | 31.5% |
| 18 | 12/3/2004 | 28 | 752 | 8743 | 26 | 27.00 | 62.28 | 5656 | 151904 | 756.0 | 46,835.5 | 13.4% | 30.8% |
| 19 | 2/28/2005 | 87 | 839 | 8656 | 89 | 57.50 | 61.79 | 17574 | 169478 | 5002.5 | 51,838.0 | 28.5% | 30.6% |
| 20 | 5/31/2005 | 92 | 931 | 8564 | 61 | 75.00 | 63.09 | 18584 | 188062 | 6900.0 | 58,738.0 | 37.1% | 31.2% |
| 21 | 8/10/2005 | 71 | 1002 | 8493 | 33 | 47.00 | 61.95 | 14342 | 202404 | 3337.0 | 62,075.0 | 23.3% | 30.7% |
| 22 | 8/11/2005 | 1 | 1003 | 8492 | 29.3 | 31.15 | 61.92 | 202 | 202606 | 31.2 | 62,106.2 | 15.4% | 30.7% |
| 23 | 9/15/2005 | 35 | 1038 | 8457 | 83.6 | 56.45 | 61.74 | 7070 | 209676 | 1975.8 | 64,081.9 | 27.9% | 30.6% |
| 24 | 9/23/2005 | 8 | 1046 | 8449 | 97 | 90.30 | 61.95 | 1616 | 211292 | 722.4 | 64,804.3 | 44.7% | 30.7% |
| 25 | 9/29/2005 | 6 | 1052 | 8443 | 44.2 | 70.60 | 62.00 | 1212 | 212504 | 423.6 | 65,227.9 | 35.0% | 30.7% |
| 26 | 10/6/2005 | 7 | 1059 | 8436 | 114 | 79.10 | 62.12 | 1414 | 213918 | 553.7 | 65,781.6 | 39.2% | 30.8% |
| 27 | 10/28/2005 | 22 | 1081 | 8414 | 12.3 | 63.15 | 62.14 | 4444 | 218362 | 1389.3 | 67,170.9 | 31.3% | 30.8% |
| 28 | 11/18/2005 | 21 | 1102 | 8393 | 3.71 | 8.01 | 61.11 | 4242 | 222604 | 168.1 | 67,339.0 | 4.0% | 30.3% |
| 29 | 12/29/2005 | 41 | 1143 | 8352 | 7.42 | 5.57 | 59.11 | 8282 | 230886 | 228.2 | 67,567.2 | 2.8% | 29.3% |
| 30 | 2/28/2006 | 61 | 1204 | 8291 | 89 | 48.21 | 58.56 | 12322 | 243208 | 2940.8 | 70,508.0 | 23.9% | 29.0% |
| 31 | 5/31/2006 | 92 | 1296 | 8199 | 61 | 75.00 | 59.73 | 18584 | 261792 | 6900.0 | 77,408.0 | 37.1% | 29.6% |
| 32 | 8/15/2006 | 76 | 1372 | 8123 | 31 | 46.00 | 58.97 | 15352 | 277144 | 3496.0 | 80,904.0 | 22.8% | 29.2% |
| 33 | 8/16/2006 | 1 | 1373 | 8122 | 39.2 | 35.10 | 58.95 | 202 | 277346 | 35.1 | 80,939.1 | 17.4% | 29.2% |
| 34 | 8/31/2006 | 15 | 1388 | 8107 | 39.2 | 39.20 | 58.74 | 3030 | 280376 | 588.0 | 81,527.1 | 19.4% | 29.1% |
| 35 | 10/5/2006 | 35 | 1423 | 8072 | 157 | 98.10 | 59.71 | 7070 | 287446 | 3433.5 | 84,960.6 | 48.6% | 29.6% |
| 36 | 10/19/2006 | 14 | 1437 | 8058 | 81.4 | 119.20 | 60.28 | 2828 | 290274 | 1668.8 | 86,629.4 | 59.0% | 29.8% |
| 37 | 11/19/2006 | 31 | 1468 | 8027 | 81.4 | 81.40 | 60.73 | 6262 | 296536 | 2523.4 | 89,152.8 | 40.3% | 30.1% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Sample Results, Calculated Budget and Exposure Values
# 49 Area C Downwind

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 38 | 11/30/2006 | 11 | 1479 | 8016 | 43 | 62.20 | 60.74 | 2222 | 298758 | 684.2 | 89,837.0 | 30.8% | 30.1% |
| 39 | 2/28/2007 | 90 | 1569 | 7926 | 89 | 66.00 | 61.04 | 18180 | 316938 | 5940.0 | 95,777.0 | 32.7% | 30.2% |
| 40 | 5/31/2007 | 92 | 1661 | 7834 | 61 | 75.00 | 61.82 | 18584 | 335522 | 6900.0 | 102,677.0 | 37.1% | 30.6% |
| 41 | 8/6/2007 | 67 | 1728 | 7767 | 31 | 46.00 | 61.20 | 13534 | 349056 | 3082.0 | 105,759.0 | 22.8% | 30.3% |
| 42 | 8/7/2007 | 1 | 1729 | 7766 | 46.9 | 38.95 | 61.19 | 202 | 349258 | 39.0 | 105,797.9 | 19.3% | 30.3% |
| 43 | 9/18/2007 | 42 | 1771 | 7724 | 57.1 | 52.00 | 60.97 | 8484 | 357742 | 2184.0 | 107,981.9 | 25.7% | 30.2% |
| 44 | 10/13/2007 | 25 | 1796 | 7699 | 43 | 50.05 | 60.82 | 5050 | 362792 | 1251.3 | 109,233.2 | 24.8% | 30.1% |
| 45 | 11/9/2007 | 27 | 1823 | 7672 | 9.29 | 26.15 | 60.31 | 5454 | 368246 | 705.9 | 109,939.1 | 12.9% | 29.9% |
| 46 | 11/30/2007 | 21 | 1844 | 7651 | 43 | 26.15 | 59.92 | 4242 | 372488 | 549.0 | 110,488.1 | 12.9% | 29.7% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

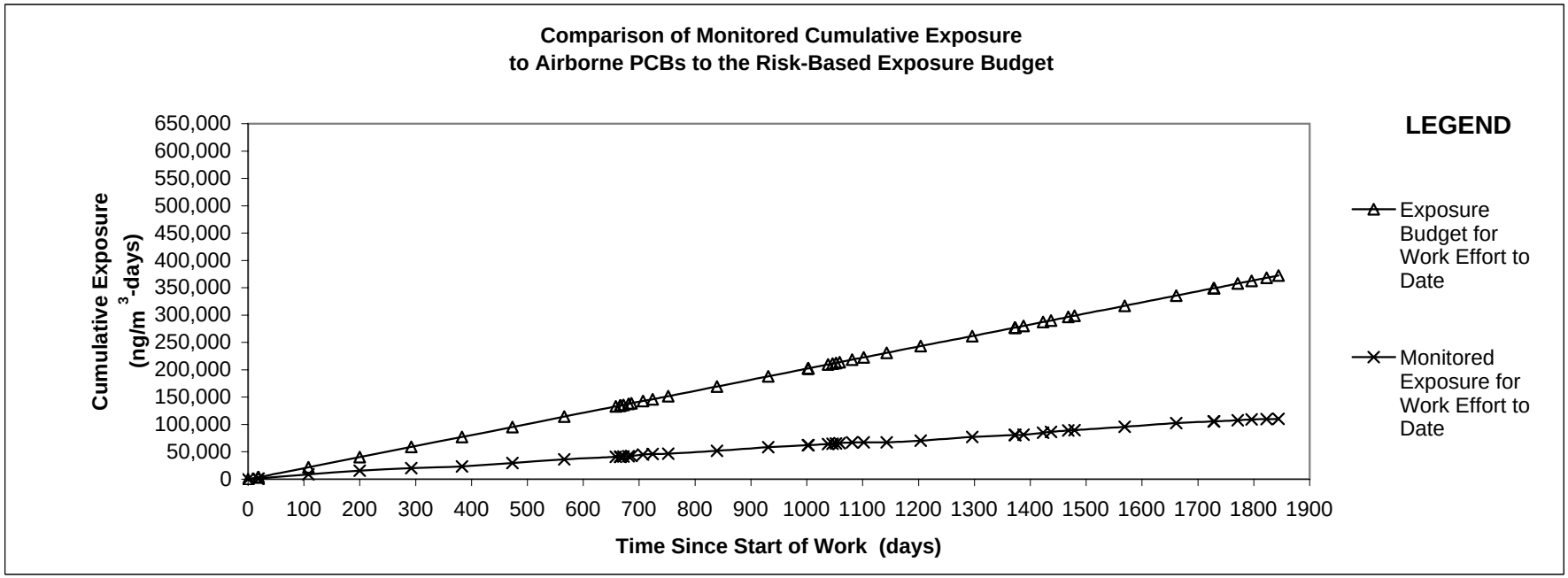
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Air Sampling Status Report

| | |
|---|---|
| **Sample Station :** | 49 Area C Downwind |
| **Collection Date:** | 11/30/2007 |
| **Measured PCB Concentration (ng/m$^3$):** | 43 |
| **Exposure Budget Expended During This Period:** | 12.9% |
| **Cumulative Exposure Budget Expended to Date:** | 29.7% |
| **Response Level:** | No Triggers Identified |
| **Response:** | No Response Necessary |

**Triggers:**




Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

# Air Sampling Status Report

New Bedford Harbor Superfund Site

**Station #:** 50 Area D Downwind
Exposure Budget Slope (EBS) = 344 nanograms per cubic meter per day (ng/m $^3$-day)

**Collection Date:** 11/30/2007

**Construction Activity:** The 2007 dredging activities were initiated on August 7, 2007 and demobilization activities were completed on October 25, 2007.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Volume sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

**Summary of This Sampling Period:**

The results from the Foster Wheeler Baseline Ambient Air Sampling program (June 1999 through May 2000) were used to assign background concentrations for each air sampling location. However, for the August 2005 background sampling event, based on wind direction for that day, the results from Station 52 were used to represent Area D downgradient air PCB concentrations. For Station 50 Area D, the average quarterly air PCB concentrations were used as background concentrations, which represent the average quarterly from Station 21 - New Bedford Welding, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 to 9/8/04, from 12/4/04 to 8/10/05, from 12/28/05 to 8/15/06, and from 11/19/06 to 8/6/07 to close the recent inactive field season. For the December 2005 post-dredging sampling event, based on wind direction for the day, the results from Station 51 were used to represent Area D downwind air PCB concentrations. In 2006 and 2007, during each sampling event, ambient air data was collected from only one air sampling station, which was placed downwind of Area D, based upon the predicted wind direction for the sampling event.

Please refer to Table F-1 for the Area D stations used during the 2006 and 2007 sampling events. In 2004 and 2005, air sampling was conducted on a weekly basis during the first month. However, since 2006, during the active field season, sampling has been conducted on a monthly basis. Since the first 2006 and 2007 sampling events were conducted about two weeks after the start of dredging, a new variation of the PETs curve was used. Therefore, to better simulate the 2006 dredging season, the ambient air concentrations from the August 31, 2006 sampling event were used to as the concentrations detected at Station 50 from August 16, 2006 (the start of dredging activities). For the 2007 dredge season, the August 21, 2007 sampling event was used to project concentrations detected downwind at Area D on August 7, 2007 (the start of dredging activities). Also, the PCB concentrations were projected to be at background levels at Station 50 Area D on October 19, 2006, which is the day after the 2006 dredging activities were completed.

For the 2007 season, the concentrations were used as the background levels at Area D from October 13, 2007, (the day after dredging activities were completed). Coordinating the sampling date with the start of dredging better simulates the actual 2006 and 2007 dredging activities. No triggers were identified, therefore, no action is necessary.

| | | |
|---|---|---|
| | | |
| | | |
| **Monitoring Station** | | 50 Area D Downwind |
| **Exposure Budget Slope** | [ng/m$^3$-day] | 344 |
| **Work Start Date** | [mm/dd/yyyy] | 11/12/2002 |
| **Projected Work End Date (Per EPA)** | [mm/dd/yyyy] | 11/10/2028 |
| | | |
| **Occupational Limit Used as Ceiling** | [ng/m$^3$] | 500,000 |
| | | |
| **TEL for Worker in Public** | [ng/m$^3$] | 50,000 |
| **NTEL for Worker in Public** | [ng/m$^3$] | 1,789 |
| **Minimum of TEL/NTEL** | [ng/m$^3$] | 1,789 |
| | | |
| **Baseline Average Concentration** | [ng/m$^3$] | 16.7 |
| | | |
| | | |
| Notes: | | |
| TEL - Threshold Effects Exposure Limit | | |
| NTEL - Non-Threshold Effects Exposure Limit | | |
| The EPA periodically assesses this Projected Work End Date, which is subject to change. | | |

# Sample Results, Calculated Budget and Exposure Values
# 50 Area D Downwind

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 1 | 11/12/2002 | 0 | 0 | 9495 | 5.9 | 5.90 | 5.90 | NC | NC | NC | NC | NC | NC |
| 2 | 11/30/2002 | 18 | 18 | 9477 | 5.9 | 5.90 | 5.90 | 6192 | 6192 | 106.2 | 106.2 | 1.7% | 1.7% |
| 3 | 12/1/2002 | 1 | 19 | 9476 | 3.4 | 4.65 | 5.83 | 344 | 6536 | 4.7 | 110.9 | 1.4% | 1.7% |
| 4 | 2/28/2003 | 89 | 108 | 9387 | 3.4 | 3.40 | 3.83 | 30616 | 37152 | 302.6 | 413.5 | 1.0% | 1.1% |
| 5 | 5/31/2003 | 92 | 200 | 9295 | 6.8 | 5.10 | 4.41 | 31648 | 68800 | 469.2 | 882.7 | 1.5% | 1.3% |
| 6 | 8/31/2003 | 92 | 292 | 9203 | 12 | 9.40 | 5.98 | 31648 | 100448 | 864.8 | 1,747.5 | 2.7% | 1.7% |
| 7 | 11/30/2003 | 91 | 383 | 9112 | 5.9 | 8.95 | 6.69 | 31304 | 131752 | 814.5 | 2,561.9 | 2.6% | 1.9% |
| 8 | 2/28/2004 | 90 | 473 | 9022 | 3.4 | 4.65 | 6.30 | 30960 | 162712 | 418.5 | 2,980.4 | 1.4% | 1.8% |
| 9 | 5/31/2004 | 93 | 566 | 8929 | 6.8 | 5.10 | 6.10 | 31992 | 194704 | 474.3 | 3,454.7 | 1.5% | 1.8% |
| 10 | 8/31/2004 | 92 | 658 | 8837 | 12 | 9.40 | 6.56 | 31648 | 226352 | 864.8 | 4,319.5 | 2.7% | 1.9% |
| 11 | 9/8/2004 | 8 | 666 | 8829 | 5.9 | 8.95 | 6.59 | 2752 | 229104 | 71.6 | 4,391.1 | 2.6% | 1.9% |
| 12 | 9/9/2004 | 1 | 667 | 8828 | 20 | 12.95 | 6.60 | 344 | 229448 | 13.0 | 4,404.1 | 3.8% | 1.9% |
| 13 | 9/14/2004 | 5 | 672 | 8823 | 38 | 29.00 | 6.77 | 1720 | 231168 | 145.0 | 4,549.1 | 8.4% | 2.0% |
| 14 | 9/23/2004 | 9 | 681 | 8814 | 6 | 22.00 | 6.97 | 3096 | 234264 | 198.0 | 4,747.1 | 6.4% | 2.0% |
| 15 | 9/28/2004 | 5 | 686 | 8809 | 80 | 43.00 | 7.23 | 1720 | 235984 | 215.0 | 4,962.1 | 12.5% | 2.1% |
| 16 | 10/19/2004 | 21 | 707 | 8788 | 17 | 48.50 | 8.46 | 7224 | 243208 | 1018.5 | 5,980.6 | 14.1% | 2.5% |
| 17 | 12/3/2004 | 45 | 752 | 8743 | 22 | 19.50 | 9.12 | 15480 | 258688 | 877.5 | 6,858.1 | 5.7% | 2.7% |
| 18 | 2/28/2005 | 87 | 839 | 8656 | 3.4 | 12.70 | 9.49 | 29928 | 288616 | 1104.9 | 7,963.0 | 3.7% | 2.8% |
| 19 | 5/31/2005 | 92 | 931 | 8564 | 6.8 | 5.10 | 9.06 | 31648 | 320264 | 469.2 | 8,432.2 | 1.5% | 2.6% |
| 20 | 8/10/2005 | 71 | 1002 | 8493 | 12 | 9.40 | 9.08 | 24424 | 344688 | 667.4 | 9,099.6 | 2.7% | 2.6% |
| 21 | 8/11/2005 | 1 | 1003 | 8492 | 21.3 | 16.65 | 9.09 | 344 | 345032 | 16.7 | 9,116.2 | 4.8% | 2.6% |
| 22 | 9/15/2005 | 35 | 1038 | 8457 | 0.52 | 10.91 | 9.15 | 12040 | 357072 | 381.9 | 9,498.1 | 3.2% | 2.7% |
| 23 | 9/23/2005 | 8 | 1046 | 8449 | 0.26 | 0.39 | 9.08 | 2752 | 359824 | 3.1 | 9,501.2 | 0.1% | 2.6% |
| 24 | 9/29/2005 | 6 | 1052 | 8443 | 24.2 | 12.23 | 9.10 | 2064 | 361888 | 73.4 | 9,574.6 | 3.6% | 2.6% |
| 25 | 10/6/2005 | 7 | 1059 | 8436 | 81.7 | 52.95 | 9.39 | 2408 | 364296 | 370.7 | 9,945.2 | 15.4% | 2.7% |
| 26 | 10/28/2005 | 22 | 1081 | 8414 | 0.01 | 40.86 | 10.03 | 7568 | 371864 | 898.8 | 10,844.0 | 11.9% | 2.9% |
| 27 | 12/29/2005 | 62 | 1143 | 8352 | 2.18 | 1.10 | 9.55 | 21328 | 393192 | 67.9 | 10,911.9 | 0.3% | 2.8% |
| 28 | 2/28/2006 | 61 | 1204 | 8291 | 3.4 | 2.79 | 9.20 | 20984 | 414176 | 170.2 | 11,082.1 | 0.8% | 2.7% |
| 29 | 5/31/2006 | 92 | 1296 | 8199 | 6.8 | 5.10 | 8.91 | 31648 | 445824 | 469.2 | 11,551.3 | 1.5% | 2.6% |
| 30 | 8/15/2006 | 76 | 1372 | 8123 | 12 | 9.40 | 8.94 | 26144 | 471968 | 714.4 | 12,265.7 | 2.7% | 2.6% |
| 31 | 8/16/2006 | 1 | 1373 | 8122 | 67.3 | 39.65 | 8.96 | 344 | 472312 | 39.7 | 12,305.3 | 11.5% | 2.6% |
| 32 | 8/31/2006 | 15 | 1388 | 8107 | 67.3 | 67.30 | 9.59 | 5160 | 477472 | 1009.5 | 13,314.8 | 19.6% | 2.8% |
| 33 | 10/5/2006 | 35 | 1423 | 8072 | 197 | 132.15 | 12.61 | 12040 | 489512 | 4625.3 | 17,940.1 | 38.4% | 3.7% |
| 34 | 10/19/2006 | 14 | 1437 | 8058 | 2.6 | 99.80 | 13.46 | 4816 | 494328 | 1397.2 | 19,337.3 | 29.0% | 3.9% |
| 35 | 11/19/2006 | 31 | 1468 | 8027 | 2.6 | 2.60 | 13.23 | 10664 | 504992 | 80.6 | 19,417.9 | 0.8% | 3.8% |
| 36 | 11/30/2006 | 11 | 1479 | 8016 | 5.9 | 4.25 | 13.16 | 3784 | 508776 | 46.8 | 19,464.6 | 1.2% | 3.8% |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Sample Results, Calculated Budget and Exposure Values
# 50 Area D Downwind

| (A) Event | (B) Sampling Date | (C) Days Since Previous Sampling Event | (D) Work Effort Elapsed Time | (E) Estimated Work Effort Remaning | (F) PCB Concentration Result | (G) Average of Most Recent Two Concentration Results | (H) Weighted Average of Concentration Results | (I) Exposure Budget for the Period | (J) Cumulative Exposure Budget for Work Effort to Date | (K) Measured Exposure During the Period | (L) Calculated Cumulative Exposure for Work Effort to Date | (M) Exposure Budget Expended During the Period | (N) Cumulative Exposure Expended for Work Effort to Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [#] | [month/day/year] | [days] | Running Sum of Column (C) to Date [days] | [days] | [ng/m$^3$] | [ng/m$^3$] | Column (L)/Column (D) [ng/m$^3$] | EBS[1] * Column (C) [ng/m$^3$-days] | Sum of Column (I) [ng/m$^3$-days] | Column (G)* Column (C) [ng/m$^3$-days] | Sum of Column (K) [ng/m$^3$-days] | Column (K) /Column (I) [%] | Column (L) /Column (J) [%] |
| 37 | 2/28/2007 | 90 | 1569 | 7926 | 3.4 | 4.65 | 12.67 | 30960 | 539736 | 418.5 | 19,883.1 | 1.4% | 3.7% |
| 38 | 5/31/2007 | 92 | 1661 | 7834 | 6.8 | 5.10 | 12.25 | 31648 | 571384 | 469.2 | 20,352.3 | 1.5% | 3.6% |
| 39 | 8/6/2007 | 67 | 1728 | 7767 | 31 | 18.90 | 12.51 | 23048 | 594432 | 1266.3 | 21,618.6 | 5.5% | 3.6% |
| 40 | 8/7/2007 | 1 | 1729 | 7766 | 36.7 | 33.85 | 12.52 | 344 | 594776 | 33.9 | 21,652.5 | 9.8% | 3.6% |
| 41 | 8/21/2007 | 14 | 1743 | 7752 | 36.7 | 36.70 | 12.72 | 4816 | 599592 | 513.8 | 22,166.3 | 10.7% | 3.7% |
| 42 | 9/18/2007 | 28 | 1771 | 7724 | 48.7 | 42.70 | 13.19 | 9632 | 609224 | 1195.6 | 23,361.9 | 12.4% | 3.8% |
| 43 | 10/13/2007 | 25 | 1796 | 7699 | 43 | 45.85 | 13.65 | 8600 | 617824 | 1146.3 | 24,508.1 | 13.3% | 0.0 |
| 44 | 11/9/2007 | 27 | 1823 | 7672 | 4.39 | 23.70 | 13.79 | 9288 | 627112 | 639.8 | 25,147.9 | 6.9% | 0.0 |
| 45 | 11/30/2007 | 21 | 1844 | 7651 | 5.9 | 5.15 | 13.70 | 7224 | 634336 | 108.0 | 25,256.0 | 1.5% | 0.0 |

**Notes:**

[1]EBS: Exposure Budget Slope= ng/m$^3$-day

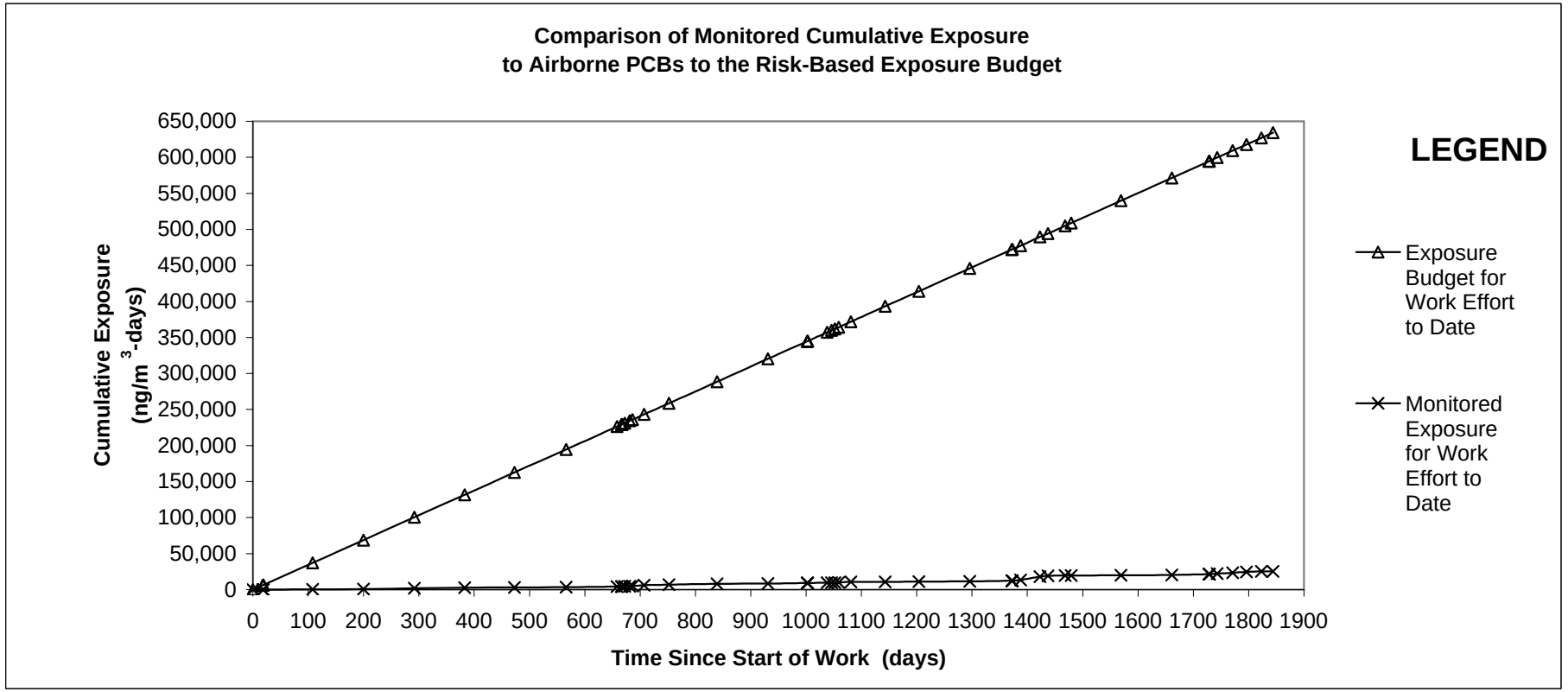
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

# Air Sampling Status Report

| | |
|---|---|
| **Sample Station :** | 50 Area D Downwind |
| **Collection Date:** | 11/30/2007 |
| **Measured PCB Concentration (ng/m$^3$):** | 5.9 |
| **Exposure Budget Expended During This Period:** | 1.5% |
| **Cumulative Exposure Budget Expended to Date:** | 4.0% |
| **Response Level:** | No Triggers Identified |
| **Response:** | No Response Necessary |

**Triggers:**




Notes:

a) 2004 dredge season, including pre- and post-dredging sampling events, were from 667 to 752 days since start of work (September 9 through December 3, 2004).
b) 2005 dredge season, including pre- and post-dredging sampling events, were from 1003 to 1143 days since start of work (August 11 through December 29, 2005).
c) 2006 dredge season, which did not include a pre-dredge sampling event, was from 1388 to 1468 days since start of work (August 16 through October 18, 2006).
d) 2007 dredge season, which did not include a pre-dredge sampling event, was from 1729 to 1823 days since start of work (August 7 through November 9, 2007).

# ATTACHMENT G

# Jacobs Solids and Water Balance and PCB Mass Removal Calculations

CBI

CBI

CBI

CBI

CBI

CBI

CBI

CBI

# ATTACHMENT H

# Sevenson Operational Monitoring Data

CBI

CBI

# ATTACHMENT I

# Process Improvement Data

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# ATTACHMENT J

# 2007 Lessons Learned/Conclusions

CBI

CBI

CBI