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Our ref:
B0064524

Subject:
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Kalamazoo River Area 1 SRI Phase 1 Data Report

Dear Jim and Paul:

Enclosed is a copy of the Kalamazoo River Area 1 Phase 1 Data Report. This data was collected as part of the Supplemental Remedial Investigation/Feasibility Study (SRI/FS) Work Plan, as approved by USEPA. I will contact you to arrange a meeting to discuss these results and plans for further sampling in 2008 based on these results.

Please call me with questions or comments.

Sincerely,

ARCADIS

Michael J. Erickson, P.E.
Associate Vice President

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Jeff Keiser, CH2M HILL
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ARCADIS
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Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site

Technical Memorandum

Kalamazoo River Area 1 SRI Phase 1 Data Report

Kalamazoo River Study Group

April 2008

Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site

Supplemental Remedial Investigations/
Feasibility Studies

Technical Memorandum

Kalamazoo River Area 1
SRI Phase 1 Data Report

Kalamazoo River Study Group

April 2008

ARCADIS

Michael J. Erickson, P.E.
Project Coordinator

Kalamazoo River Area 1 SRI
Phase 1 Data Report

Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site

Supplemental Remedial
Investigations/Feasibility Studies

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Date:
April 11, 2008

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Table of Contents

1. Introduction 1-1

2. Phase 1 Investigation Components 2-1

3. SRI Phase 1 Investigation 3-1

3.1 Kalamazoo River from the former Georgia-Pacific Mill Lagoons to the Mill Race Confluence in Plainwell 3-1

3.1.1 Kalamazoo River Sediment Transect Probing and Core Sampling 3-1

3.1.2 Surface Sediment Sampling at Kalamazoo River Transect Locations Sampled in 2000 3-2

3.1.3 Sampling of Area of Historic Inundation near Plainwell No. 2 Dam 3-3

3.1.4 River Bank and Floodplain Soil Sampling near Plainwell 3-3

3.1.5 Crown Vantage Landfill Area 3-4

3.1.5.1 Crown Vantage Landfill Upland Reconnaissance 3-4

3.1.5.2 Crown Vantage Channel Sediment Probing 3-4

3.1.5.3 Focused Sample Step-out Sampling between the Crown Vantage Landfill Area and Plainwell No. 2 Dam 3-5

3.2 Portage Creek 3-6

3.2.1 Sediment Probing 3-6

3.2.2 Sediment Deposit Mapping 3-8

3.2.3 100-year Floodplain Evaluation 3-9

3.2.3.1 100-year Floodplain Elevation Comparison 3-10

3.2.3.2 Bridge Elevation Comparison 3-11

3.2.3.3 Conclusions 3-11

4. Former Plainwell Impoundment TCRA Monitoring 4-1

4.1 Surface Water Sampling 4-1

4.2 Yearling Smallmouth Bass Sampling 4-1

4.3 Bathymetric Surveying 4-2

4.4 Post-Construction Surface Sediment Sampling 4-2

5. References 5-1

Tables

2-1 Status of SRI Phase 1 Components (placed in text)

2-2 Status of 2007 TCRA Effectiveness Monitoring Activities (placed in text)

3-1 Sediment Core/Probing Data – Kalamazoo River Transects

3-2 Summary of Sediment Transect Probing Data – Kalamazoo River Transects

3-3 Summary of Sediment Core Texture – Kalamazoo River Transects

3-4 Sediment Core Descriptions – Kalamazoo River Transects

3-5 Surface Sediment (0-2 inches) Data

3-6 Summary of Surface Sediment (0-2 inches) PCB Data

3-7 Summary of Surface Sediment (0-2 inches) Total Organic Carbon and Solids Data

3-8 Surface Sediment (0-2 inches) Particle Size Data

3-9 Summary of Surface Sediment (0-2 inches) Particle Size Distribution

3-10 Plainwell No. 2 Dam – Reconnaissance Survey Data in Formerly Inundated Area

3-11 Top-of-Bank Core Description – River Bank Soil Sampling Near Plainwell

3-12 Top-of-Bank Soil PCB Results

3-13 Top-of-Bank Soil TOC and Solids Results

3-14 Top-of-Bank Particle Size Distribution Data

3-15 Sediment Transect Probing Data – Crown Vantage Landfill

3-16 Summary of Sediment Transect Probing Data – Crown Vantage Landfill

3-17 Sediment Transect Probing Data – Portage Creek Transects

3-18 Portage Creek Sediment Characteristics (placed in text)

3-19 Summary of Sediment Transect Probing Data – Portage Creek Transects

3-20 Summary of Sediment Texture – Portage Creek Transects

3-21 Sediment Deposit Descriptions – Portage Creek

3-22 Portage Creek 100-year Floodplain Elevation Comparison

3-23 Portage Creek Bridge Elevation Comparison

4-1 TCRA Surface Water Monitoring Results

4-2 Yearling Smallmouth Bass Whole Body Composite Samples

4-3 Bathymetric Surveying in the Former Plainwell Impoundment

4-4 Post-Construction TCRA Sediment Sample Descriptions

4-5 Post-Construction TCRA Particle Size Data

4-6 Post-Construction TCRA Sediment Sample Analytical Results

Figures

1-1 Site Location Map

3-1 Sediment Transect Sampling Characterization – Former Georgia-Pacific Mill Lagoons to Portage Creek

3-2 Sediment Transect Sampling Characterization – Portage Creek to Crown Vantage Landfill

3-3 Sediment Transect Sampling Characterization – Upstream of Plainwell No. 2 Dam to Mill Race Confluence

3-4 Surficial Sediment Focused Sampling Characterization – Former Georgia-Pacific Mill Lagoons to Portage Creek

3-5 Surficial Sediment Focused Sampling Characterization – Portage Creek to Crown Vantage Landfill

3-6 Surficial Sediment Focused Sampling Characterization – Upstream of Plainwell No. 2 Dam to Mill Race Confluence

3-7 Surficial Sediment Focused Sampling PCB Results – Former Georgia-Pacific Mill Lagoons to Portage Creek

3-8 Surficial Sediment Focused Sampling PCB Results – Portage Creek to Crown Vantage Landfill

3-9 Surficial Sediment Focused Sampling PCB Results – Upstream of Plainwell No. 2 Dam to Mill Race Confluence

3-10 PCB Concentration in Surface Sediment by Sediment Type

3-11 Reconnaissance Area Near Plainwell No. 2 Dam

3-12 Survey Locations at Right Diversion Structure of Plainwell No. 2 Dam

3-13 Survey Locations at Left Diversion Structure of Plainwell No. 2 Dam

3-14 Sediment Probing Locations – Crown Vantage Landfill Area

3-15 Focused Step-Out Sampling Locations – Crown Vantage Landfill to Upstream of Plainwell No. 2 Dam

3-16 Sediment Probing Locations – Portage Creek: Alcott St. to Confluence

3-17 Sediment Transect Sampling Characterization – Portage Creek Transects PCT1 to PCT8

3-18 Sediment Transect Sampling Characterization – Portage Creek Transects PCT9 to PCT20

3-19 Sediment Transect Sampling Characterization – Portage Creek Transects PCT21 to PCT30

3-20 Sediment Transect Sampling Characterization – Portage Creek Transects PCT31 to PCT40

3-21 Sediment Transect Sampling Characterization – Portage Creek Transects PCT41 to PCT53

3-22 FEMA Floodplain Transects

4-1 Bathymetric Survey Transects in the Former Plainwell Impoundment

4-2 Post-Construction TCRA PCB Sample Locations and Results

Appendices

Appendix A Kalamazoo River Transect Cross-Sections

Appendix B Crown Vantage Landfill Upland Reconnaissance Photographs

Appendix C Crown Vantage Transect Cross-Sections

Appendix D Portage Creek Transect Cross-Sections

Appendix E Former Plainwell Impoundment Channel Cross-Sections at USGS Transects

1. Introduction

On February 21, 2007 a new phase of work began at the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site (the Site or Superfund Site), located in Kalamazoo and Allegan Counties in southwest Michigan. On that day, the Kalamazoo River Study Group (KRSG) – comprised of Millennium Holdings, LLC and the Georgia-Pacific Corporation (Georgia-Pacific) – voluntarily entered into an Administrative Settlement Agreement and Order on Consent (AOC) with the United States Environmental Protection Agency (USEPA)[1]. The AOC and the accompanying Statement of Work (SOW, included as Attachment A to the AOC) describe the framework for a series of Supplemental Remedial Investigations and Feasibility Studies (SRIs/FSs) that will be carried out in Operable Unit 5 (OU5) of the Site over the next several years.

OU5 encompasses approximately 80 miles of the Kalamazoo River between Morrow Dam and Lake Michigan, and a stretch of Portage Creek from Alcott Street to its confluence with the Kalamazoo River (Figure 1-1). In the SOW, OU5 was divided into seven specific Areas, and USEPA and KRSG agreed that work would begin in Area 1 – the approximately 22-mile reach from Morrow Dam to the former Plainwell Dam, including the stretch of Portage Creek (shown in red on Figure 1-1). Activities in the remaining Areas of the Site will be planned and implemented in the future, as described in the AOC and SOW.

The first step in advancing work in Area 1 was the development of the *Supplemental Remedial Investigation/Feasibility Study Work Plan – Morrow Dam to Plainwell Dam* (Area 1 SRI/FS Work Plan; ARCADIS BBL 2007a), which was submitted to and approved by USEPA as part of the finalization of the AOC. In general, the Area 1 Work Plan describes a phased sampling program, with each subsequent phase based on previous results. The Phase 1 activities in Area 1 include:

- collecting soil samples from selected areas within the river floodplain
- resampling surface sediments in targeted areas
- identifying potential areas for additional soil or sediment sampling (as necessary) through reconnaissance and sediment probing in several specific sections of Area 1
- assessing the Portage Creek floodplain boundaries

[1] Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] Docket No. V-W-07-C-864

The work in Area 1 also includes monitoring and assessment efforts to gauge the results of the Time-Critical Removal Action (TCRA), which is currently underway in the former Plainwell Impoundment. The TCRA, which is described in the *Former Plainwell Impoundment Time-Critical Removal Action Design Report* (ARCADIS BBL 2007b), began in the spring of 2007, and construction is expected to be complete by April 2009.

Overall, the Phase 1 investigations in Area 1 will enhance the current understanding of the nature and extent of polychlorinated biphenyls (PCBs), and provide a basis for completing subsequent phases of sampling for this portion of the Site.

Field work for Phase 1 of the SRI sampling and assessment activities in Area 1 started in September 2007. As required in the AOC, USEPA and MDEQ were notified prior to the initiation of the work, and MDEQ (or representatives) provided oversight of select field activities. With the exception of soil sampling in the Plainwell No. 2 Dam area and selection of cores for analysis between the Plainwell No. 2 Dam and Mill Race confluence, the Phase 1 work is now complete, and the monitoring results for the 2007 TCRA construction season are available—the results are presented in this *Kalamazoo River Area 1 SRI Phase 1 Data Report*. The overall status of the various components of Phase 1 is briefly summarized in Section 2. The outcomes of work in Portage Creek and in the Kalamazoo River upstream of the former Plainwell Impoundment are presented in Section 3, while the TCRA monitoring results available to date are included in Section 4. This report is strictly a data presentation and summary – there are no detailed analyses or discussions of implications. The findings of Phase 1 will be used to develop the details of Phase 2, which will be described in a separate series of work plans submitted to USEPA.

2. Phase 1 Investigation Components

The Area 1 SRI/FS Work Plan (ARCADIS BBL 2007a) presented a phased approach for the planned work, in which data are collected and evaluated, and then the results are used to inform the necessity for and design of each subsequent phase of investigation. The components of Phase 1 of the Area 1 SRI activities are shown in Table 2-1, along with the current status of each effort.

Table 2-1. Status of SRI Phase 1 Components

Area	Component	Status
Kalamazoo River from Georgia-Pacific Mill Lagoons to Mill Race confluence[1]	Probe and core sediment at 16 transects	Complete – cores in frozen storage
	Resample 56 Kalamazoo River Transect locations (established in 1993/94) and analyze surficial samples for PCB	Complete – remainder of cores in frozen storage
Crown Vantage	Determine extent and delineate areas of trash, debris, or sediment	Complete
Crown Vantage to Plainwell No. 2 Dam	Determine lateral and vertical extent of materials similar to that originally sampled at five focused locations, and characterize shape and depositional nature of deposits	Complete
Plainwell No. 2 Dam	Identify and map the approximate extent of historical inundation	Complete (submitted to USEPA January 22, 2008)
	Collect soil samples to determine potential for historical PCB deposition	Proposed sampling plan submitted to USEPA January 22, 2008
Plainwell No. 2 Dam to Mill Race confluence[1]	Collect top-of-bank soil cores at 12 locations	11 cores collected and analyzed for PCB; one location not sampled because access to property was not granted
	Select sediment cores for laboratory analysis	Proposed sampling plan under development
Portage Creek	Probe sediment along 53 transects	52 transects complete; one transect not probed because access to property was not granted
	Conduct visual inspection to assess sediment distribution in conjunction with probing	Complete
	Develop map of 100-year floodplain	Complete

Notes:
1. Sampling included locations in both the mill race and main river channel.
2. USEPA and KRSG agreed to eliminate this sample from the sampling activities (Saric, 2007)

Components of the TCRA monitoring are shown in Table 2-2, along with the current status of each activity.

Table 2-2. Status of 2007 TCRA Effectiveness Monitoring Activities

Component	Description	Status
Bathymetric Monitoring	Collect post-construction season sediment elevation measurements at established transect locations	Complete for 2007
Water Column Monitoring	Perform every-other-day surface water sampling upstream and downstream of the former Plainwell Impoundment	Complete for 2007 – sampling terminated December 19, 2007 with USEPA approval
Yearling Fish Monitoring	Conduct post-construction season yearling fish sampling in Otsego City Impoundment	Complete – five composite samples analyzed
Post-Removal Sediment Sampling	Collect near-shore sediment samples in completed removal areas	Complete for 2007 removal areas

3. SRI Phase 1 Investigation

The results of the SRI Phase 1 investigation activities are described in this section, organized by activity type and location.

3.1 Kalamazoo River from the former Georgia-Pacific Mill Lagoons to the Mill Race Confluence in Plainwell

3.1.1 Kalamazoo River Sediment Transect Probing and Core Sampling

Phase 1 included sediment probing and core collection in the Kalamazoo River to further characterize the sediment distribution and characteristics between the former Georgia-Pacific Mill lagoons and the Crown Vantage Landfill, and between the upstream-most structure of the Plainwell No. 2 Dam and the Mill Race confluence at the Plainwell Paper Company Mill.

Sediment probing and core collection was performed in the River between October 3 and October 25, 2007. Sediment was probed and cored along ten transects between the former Georgia-Pacific Mill lagoons and the Crown Vantage Landfill (Figure 3-1 and Figure 3-2), and along six transects between the upstream-most structure of the Plainwell No. 2 Dam area and the Mill Race confluence with the Kalamazoo River (Figure 3-3). Eight locations were identified on each transect – one at each edge-of-water location with six equally-spaced locations in between (a total of 128 locations). At each location, water depth and sediment thickness were measured, a core was collected, sediment composition was described, and survey data recorded. Probing data are presented in Table 3-1 and summarized in Table 3-2. Mean water depth among the 16 transects ranged from 1.7 feet (Transect KRT8) to 5.8 feet (Transect KRT5 and Transect KRT11), while average sediment thickness ranged from 0.28 feet (Transect KRT13) to 5.2 feet (Transect KRT2).

A total of 128 sediment cores (8 cores per transect) were collected as part of Phase 1 sampling activities. Each core collected was photographed, described using the Unified Soil Classification System (USCS), characterized with respect to texture (fine vs. coarse), and retained in frozen storage for potential future analysis (a subset of these cores will be analyzed in Phase 2). Sediment core data are presented in Table 3-1. Of the 128 sediment cores collected during Phase 1 sampling activities, 104 locations (81%) were characterized as coarse sediment, with the remaining 24 locations (19%) characterized as fine sediment (see Table 3-3). Figures 3-1 through 3-3 distinguish the locations of the coarse and fine cores along each transect. Appendix A provides a graphical representation of the river cross-sections elevations and probed sediment thicknesses at the sediment transects.

3.1.2 Surface Sediment Sampling at Kalamazoo River Transect Locations Sampled in 2000

In addition to the sediment transect probing and coring described in Section 3.1.1, between October 11 and October 24, 2007 sediment cores were collected from transect locations that were first established and sampled in 1993/1994 and resampled in 2000. These locations are shown in Figures 3-4, 3-5, and 3-6. In total, 32 surface samples were collected between the former Georgia-Pacific Mill lagoons and the Crown Vantage Landfill, and 23 surface sediment samples from between the Plainwell No. 2 Dam area and the Mill Race confluence with the Kalamazoo River (at the Plainwell Paper Company Mill). At each location, the water depth and sediment thickness were measured and surface sediment samples (0- to 2-inch increment) were collected. Cores were collected at each of the targeted locations, photographed, described using the USCS for comparison with earlier data, and characterized with respect to texture (fine vs. coarse). The sediment core data for the surface samples are presented in Table 3-4. Figures 3-4, 3-5, and 3-6 include the distinction of coarse and fine sediment textures.

The upper two inches of sediment was sectioned from each core and submitted for laboratory analysis of PCB Aroclors, total organic carbon (TOC), percent solids, and particle size distribution. All remaining core material remains in frozen storage for potential future use. Analytical results for the surface sediment samples collected in two areas—the stretch from the former Georgia-Pacific Mill lagoons to the Crown Vantage Landfill and in Plainwell No. 2 Dam area and the Mill Race confluence—are provided in Table 3-5, summarized in Table 3-6, and graphically presented on Figures 3-7 through 3-9.

In general, PCB concentration in fine sediment was greater than coarse sediment. Figure 3-10 shows box plots of the data presenting the median and quartile of PCB concentrations for coarse and fine sediments.

TOC and percent solids in the surface sediment samples collected between the former Georgia-Pacific Mill lagoons and the Crown Vantage Landfill and Plainwell No. 2 Dam area and the Mill Race confluence are presented in Table 3-5 and summarized in Table 3-7.

Particle size distributions for the surface sediment samples collected between the former Georgia-Pacific Mill lagoons and the Crown Vantage Landfill and Plainwell No. 2 Dam area and the Mill Race confluence are presented in Table 3-8 and summarized in Table 3-9.

3.1.3 Sampling of Area of Historic Inundation near Plainwell No. 2 Dam

The area around the various structures of the Plainwell No. 2 Dam has not been the focus of prior investigations. Since the four dam structures associated with the No. 2 Dam are no longer fully operational and do not impound water to the extent they did historically, the Area 1 SRI/FS Work Plan (ARCADIS BBL 2007a) included an effort to sample floodplain soils in the historically inundated area around the structures to assess the potential presence of PCBs. For Phase 1 of the SRI, low-lying areas upstream of the left and right diversion structures to approximately KPT-49 were surveyed along a number of transects and at discrete points between October 15 and November 9, 2007 (Figure 3-11). Subsequent survey data were collected on November 13, 2007 on and around the diversion structures to rectify elevation data to previous studies. Figure 3-11 shows the general area of reconnaissance, and Figures 3-12 and 3-13 show survey points at the right and left diversion structures (respectively) of the Plainwell No. 2 Dam. Table 3-10 provides survey data from the field effort. Based on these data, field observations (terrain, soil characteristics, physical observations, and vegetation types), historical air photos, and other pertinent information, the approximate extent of historical inundation was bounded for purposes of selecting Phase 2 sampling locations.

3.1.4 River Bank and Floodplain Soil Sampling near Plainwell

Soil cores were collected from the top-of-bank location at each end of five of the six transects (KRT11 through KRT16) established in the Area 1 SRI/FS Work Plan along the Mill Race and the Kalamazoo River channel between the Plainwell No. 2 Dam and the confluence of the Mill Race with the Kalamazoo River. Ten soil cores were collected on October 25, 2007 and one was collected on November 27, 2007. One transect end point (KRT13) was not sampled because the landowner did not grant access to his property. USEPA approved elimination of this sample from the Work Plan (Saric 2007). The eleven soil cores were photographed, described, and segmented into the 0- to 6-inch depth interval, 6- to 12-inch depth interval, and subsequent 1-foot intervals to the bottom of the core; all samples were submitted to the laboratory for PCB, TOC, percent solids, and particle size distribution analyses. Table 3-11 presents the top-of-bank core descriptions. Soil cores were segmented and submitted to the laboratory during the week of January 7, 2008. The PCB results, TOC and percent solids results, and particle size distribution data are presented in Tables 3-12, 3-13, and 3-14 (respectively) for the soil cores collected from the top-of-bank sampling locations near Plainwell. Surface PCB results ranged from non-detect to 8.4 mg/kg, with an average result of 2.0 mg/kg. Subsurface results ranged from non-detect to 17 mg/kg, with an average of 2.5 mg/kg.

3.1.5 Crown Vantage Landfill Area

Reconnaissance work was conducted as part of the Area 1 SRI Phase 1 activities in the low-lying area between the Crown Vantage Landfill and the Kalamazoo River. This component of Phase 1 was developed in response to field observations reported by USEPA of potential deposits of paper-making residuals and detected PCB concentrations in the sediment of the shallow flowage channel adjacent to the landfill (Bing-Canar 2007). The first phase of the Crown Vantage Landfill investigation included field reconnaissance to survey the area, delineate the extent of any observable trash or construction debris that may have resulted from recent work at the landfill, and identify sediment deposits or potential fine-grained sediment within the localized channel.

3.1.5.1 Crown Vantage Landfill Upland Reconnaissance

On November 27, 2007 field reconnaissance was performed in the low-lying area between the Crown Vantage Landfill and the river. A total of 16 locations were surveyed, photographed, and described in the field log. An additional 11 points of interest were photographed and described between the surveyed locations. Figure 3-14 shows the survey locations, and a photographic log of the upland reconnaissance is presented in Appendix B.

A number of fallen trees were noted in the area (locations 5, 8, 9, and 10 on Figure 3-14) with a gray soil matrix present in the up-turned root mass. Additional gray soils were noted at locations 6, 7, 11, and 12, and appear to be associated with exposed coils of aluminum-faced paper stock along the floodplain berm. Overall, the areas in which gray soils were found during the November 2007 upland reconnaissance effort are consistent with areas where USEPA reportedly observed potential deposits of paper-making residuals (USEPA 2007).

Trash was observed in the area south of the south pile (locations 1 through 4 on Figure 3-14) and outside the floodplain just west of the roadway along the landfill (locations 13 through 16). At locations 1 through 4, the trash appeared composed of decayed paper with foil facing, plastic sheeting, and printed paper stock. What appeared to be aluminum-faced paper stock was found at locations 13 through 16. Gray soils were not observed in these areas.

3.1.5.2 Crown Vantage Channel Sediment Probing

On November 14, 2007 sediments within the localized side channel were probed with a rod along eight transects. The channel was probed at five locations along each transect; probing locations are shown on Figure 3-14 (CVT-01 through CVT-08). All probing locations were surveyed. At each probed location, the water depth and sediment thickness were measured

and the sediment composition described. Probing data are presented in Table 3-15 and summarized in Table 3-16. Mean water depth along the eight transects ranged from 0.5 feet (CVT-07) to 1.4 feet (CVT-04). Mean sediment thickness along the eight transects ranged from 1.6 feet (CVT-04) to 3.5 feet (CVT-07). Sediment channel cross-sections showing elevations and sediment thicknesses at probing locations at each transect are provided in Appendix C.

3.1.5.3 Focused Sample Step-out Sampling between the Crown Vantage Landfill Area and Plainwell No. 2 Dam

Along the Kalamazoo River between the Crown Vantage Landfill and the Plainwell No. 2 Dam, SRI activities were performed to assess areas around five focused samples collected in 2000. Four focused sample locations were revisited on November 28, 2007: FF-32, FF-37, FF-40, and FF-42; and a fifth location (FF-35) was revisited on December 19, 2007 (Figure 3-15). At each of these locations, the surrounding soils or sediments were probed and surveyed to assess the lateral and vertical extent of materials similar to those that were originally sampled in 2000, and to characterize the shape and depositional nature of any sediment deposit in that area. The area surrounding each point was visually surveyed to identify any unique or distinguishing characteristics of the soil or sediment deposit for purposes of selecting sampling locations for Phase 2. In addition, at each point, probing was performed by stepping out at intervals in four directions up to 400 feet from the focused sample location.

The five focused sampling locations were as follows:

- FF-32 – potential depositional area at the downstream end of an island
- FF-35 – small sediment embayment off the side of the river channel
- FF-37 – potential depositional area at the downstream end of an island
- FF-40 – potential depositional area at the downstream end of an island
- FF-42 – low, marshy area adjacent to the river

At each of the five focused sample locations, the soil or sediment was visually consistent throughout the immediate area, and in all cases, no particular characteristics at the focused sample location were observed that would suggest the presence of a distinct, identifiable deposit. Rather, the original focused points were representative of, and consistent with, soils/sediments in the larger area, and generally representative of the geomorphological feature in which they were located (as described in the bullet list above). In accordance with

the Area 1 SRI/FS Work Plan (ARCADIS BBL 2007a), step-out sampling locations in the immediate area of the five focused locations will be determined with USEPA approval to assess surrounding PCB concentration. This proposal will be described in a letter work plan to be submitted in spring 2008.

3.2 Portage Creek

The following section presents the results of sediment transect probing and sediment deposit mapping efforts carried out in and along Portage Creek between Alcott Street and the confluence with the Kalamazoo River, and describes the results of the evaluation of the existing mapping of the 100-year floodplain within the same area.

3.2.1 Sediment Probing

Phase 1 of the SRI work in Portage Creek included a physical probing and visual assessment of sediment distribution to design the scope of Phase 2 sampling. Since the targeted area of the creek is fairly small and all sediments can be visually observed due to the shallow water depth, the geographical sediment distribution in Portage Creek was determined based upon a detailed continuous visual inspection in conjunction with probing. Sediment probing activities were conducted between September 25, 2007 and October 2, 2007. A total of 53 channel transects were established at approximate 200-foot intervals between Alcott Street and the confluence with the Kalamazoo River (Figure 3-16). At each transect, the endpoints were surveyed, and the creek bed was probed at five to ten locations, resulting in 388 total probing locations. The water depth and sediment thickness were measured and the sediment composition described at each probing location. All Portage Creek transect probing data are presented in Table 3-17.

Bank and channel conditions along Portage Creek varied from channelized concrete raceways to natural channels and vegetated banks. Probed sediment thickness ranged from 0 to 9 feet, with the least sediment in channelized sections, areas with armored banks, and concrete headwalls near bridges. Areas with vegetated banks and more natural channel conditions tended to be associated with greater probing depths. Based on slope and bank type encountered, Portage Creek can generally be divided into four distinct segments.

The first segment (Transects PCT1 through PCT5) is a fairly steep concrete raceway, with a slope of approximately 0.6% (see Table 3-18, below). Water depths in this segment averaged 0.77 feet, with a maximum depth of 1.5 feet (Table 3-17). The thickness of sediment encountered ranged from 0 to 2.2 feet (Table 3-17), with a mean sediment thickness of 0.37 feet. Transect 2 was not probed due to lack of access.

Table 3-18. Portage Creek Segment Characteristics

Creek Segment	Mean Water Depth (ft)	Mean Sediment Thickness (ft)	Average Creek Bottom Slope
PCT1 – PCT5	0.77	0.37	0.6%
PCT6 – PCT14	0.85	0.71	0.3%
PCT15 – PCT41	1.1	4.0	0.07%
PCT41 – PCT53	1.3	3.0	0.1%

The second segment of the creek (Transects PCT6 to PCT14) exhibited mixed bank types – a typical cross-section had one concrete bank and one natural bank (either soil or vegetation). Within this segment, little to no sediment was encountered near concrete walls, and the greatest probing depths were observed near the natural banks. The mean thickness of probed sediment was 0.71 feet, with a maximum of 4 feet (Tables 3-18 and 3-19). The mean water depth was 0.85 feet, with a maximum depth of 1.9 feet (Tables 3-18 and 3-19). The slope of this segment was approximately 0.3%.

The third segment, between Transects PCT15 and PCT41, was observed to have a much lower slope (approximately 0.07%) and moderately to heavily vegetated banks. Mean sediment thickness within this segment was approximately 4.0 feet, with a maximum of 9 feet (Tables 3-18 and 3-19). Transects PCT21 through PCT25 are located adjacent to Upjohn Park (Figure 16), and were observed to have natural banks and increasing sediment thickness with distance downstream. Concrete headwalls and caged riprap were noted at the East Vine Street and Portage Street bridges (Transects PCT28 and PCT35, respectively) and 400 feet downstream from East Vine Street (Transect PCT30). These areas had shallower probed sediment thickness compared to transects immediately upstream and downstream. The mean water depth was 1.1 feet, with a maximum depth of 3.1 feet (Tables 3-18 and 3-19).

Nearing the confluence of the Kalamazoo River, the fourth segment runs from Transect PCT42 to the confluence (PCT53). This segment had a mean slope of approximately 0.1%, mean water depth of 1.3 feet, and mean probed sediment thickness of 3.0 feet. Maximum measured water and sediment depths were 4.1 and 9.0 feet, respectively (Tables 3-18 and 3-19).

Table 3-20 summarizes the number of fine and/or coarse sediment locations at each transect, while Figures 3-17 through 3-21 present the fine and coarse sediment locations along the transects in Portage Creek. Appendix D provides graphical representations of the transect cross-sections.

3.2.2 Sediment Deposit Mapping

Between transects, sediment mapping was accomplished by wading along the creek and physically probing the creek bottom with a rod for depositional areas. Areas penetrable with the rod were considered to be sediment deposits. Distinct deposits were probed further to determine their approximate depth and aerial extent. Physical information obtained during probing was recorded in field logs, and is presented in Table 3-21. Sediment deposits identified during probing activities were characterized with respect to texture (fine vs. coarse), as well as localized geomorphological characteristics, including channel geometry, terraces, aggrading bars, and bank slopes. The classification and geomorphological features of each sediment deposit were recorded, and the locations of the deposits were mapped in relation to the nearest two transects (see Figures 3-17 to 3-21).

Two notable depositional areas were observed in Portage Creek. One was in the third segment, approximately midway between Alcott Street and the confluence with the Kalamazoo River (Transects PCT15 - PCT43), where there are low-lying areas with adjacent natural banks. The other, an area of fine sediment with silt commonly encountered at probe locations, was found near the confluence, between Transects PCT44 and PCT53. It was in this depositional area nearer the confluence that the two largest deposits were identified. The first, located between Transects PCT48 and PCT49, was located adjacent to a sheetpile wall and had an average sediment thickness of approximately 2 feet. The second was observed between Transects PCT52 and PCT53 and had an average sediment thickness of approximately 4.5 feet. During periods of low water, some sediments in portions of this area just upstream of the confluence may be visible above the water surface.

Light gray clay-like material was observed along both banks near the confluence, up to four feet above the water level that was present during the probing survey. Other, smaller, isolated deposits of fine-grained material were observed behind flow obstructions along the channel margins in the upstream areas; however, silts were encountered almost exclusively in areas further downstream. Locations of sediment deposits are shown on Figures 3-17 to 3-21.

The smaller upstream deposits included:

- A sediment deposit between Transects PCT5 and PCT6 within the concrete raceway. This is an area with relatively little deposition; however, the presence of a low vegetated terrace between these transects has allowed a depositional area with an average thickness of 3.5 feet to develop behind it. Gray material is present both within this deposit and in channel sediment.

- A sediment deposit between Transects PCT11 and PCT12 that contained fine sand over gravel, with a small amount of silt, with an average thickness of 2 feet.

- A similar sediment deposit consisting of fine sand between Transects PCT14 and PCT15, with an average thickness of 1.5 feet.

- A sediment deposit consisting of fine sand, silt, and organic materials between Transects PCT25 and PCT26, in the vicinity of the Crosstown Parkway Bridge, with an average thickness of 5 feet.

3.2.3 100-year Floodplain Evaluation

The Area 1 SRI Work Plan (ARCADIS BBL 2007) describes the development of a map of Portage Creek's 100-year floodplain between Alcott Street and the Kalamazoo River based on existing information, supplemented by field survey data where needed to address potential data gaps. The most widely used floodplain maps typically available for incorporated areas are the Flood Insurance Studies (FIS) published by the Federal Emergency Management Administration (FEMA). These studies are performed for populated areas throughout the United States, and are commonly used for insurance purposes, land use planning, and other flood risk evaluations. To develop the floodplain map for Portage Creek, the FEMA 100-year floodplain delineation was used as a basis, and its accuracy was assessed by collecting additional topographic survey data.

FEMA conducted a flood insurance study for the city of Kalamazoo, Michigan, Kalamazoo County (FEMA 1984) that included an analysis of the 100-year floodplain for Portage Creek. The hydraulic analysis was conducted using a HEC-2 model containing transects along the creek that were obtained from field survey data collected in October and November 1979. A flood profile was created by FEMA based on the HEC-2 100-year storm event water surface elevation (WSE) results and a topographic map at a scale of 1:24000 with a contour interval of 10 feet. The FEMA 100-year floodplain is presented in Figure 3-22. To assess the accuracy of the FEMA flood profile and floodplain extent, ARCADIS conducted a field survey between October 25, 2007 and October 27, 2007. The survey included two types of measurements:

- Elevations along the boundary of the FEMA 100-year floodplain at the points shown on Figure 3-22 that were identified in the field based on landmarks and features evident in aerial photographs.

- Survey of representative road surface elevations on bridges crossing Portage Creek.

The elevations at the floodplain boundary were measured to assess the accuracy of the FEMA 100-year floodplain at the discrete points identified on Figure 3-22, while the top-of-bridge elevations were measured to compare against top-of-bridge elevations used in the original HEC-2 model.

3.2.3.1 100-year Floodplain Elevation Comparison

The point elevations surveyed by ARCADIS in October 2007 are compared with corresponding FEMA 100-year floodplain in Table 3-22. Seven survey points were located at or very near actual FEMA HEC-2 model transect locations (shown in Figure 3-22 and in bold in Table 3-22). These survey points were compared to the actual HEC-2 model results for those transects as reported in the FIS (FEMA 1984). Eighteen additional points were surveyed along the boundary of 100-year floodplain boundary between FEMA transect locations. At these survey points, the 100-year flood elevation was interpolated from the nearest reported elevations. Several ARCADIS survey points shown on Figure 3-22 are not included in Table 3-22 because they were used as check points in the field, they are duplicative of other nearby survey locations, or they were surveyed in conjunction with other observations (i.e., terrain) and not with the intent to compare to the floodplain boundary.

Results of the elevation comparison indicate that the FEMA 100-year floodplain appears to be reasonably accurate for Portage Creek upstream of Reed Avenue, and downstream of Portage Street, with more uncertainty between Reed Avenue and Portage Street, where the terrain is flatter and the creek not as channelized. Typically, if there are not distinct barriers the floodplain elevation is more uncertain, because slight vertical variations may translate to wide lateral distances. Based on the survey points compared in Table 3-22, the discrepancy between measured elevations and the corresponding elevation of the FEMA floodplain line ranges from 0.1 feet to 3.2 feet on the northwest side of floodplain. The FEMA map elevations were generally more accurate on the east side than the west side of the floodplain; this may be due in part to the presence of the Axtel Creek drainage on the west side. Average values of difference between measured elevations and FEMA elevations are 1.3 feet on the west side of Portage Creek and 1.0 feet on the right side. There are several possible sources of error that could attribute to these discrepancies:

- Lack of accuracy and/or precision in the 1979 survey data
- HEC-2 model error or inaccuracy

- Channel and floodplain conditions changed between the time of the FEMA floodplain analysis (1979) and the 2007 ARCADIS survey (i.e., channelization, road construction, downtown commercial development, etc.)

- Lack of detailed topographical information and map scale (scale of 1:24000 with contour interval of 10 feet) when FEMA mapped the floodplain

    - flood profile boundaries were interpolated using the topographic map between cross sections

    - cross sections used in the model were obtained from the field survey but supplemented by the topographic map

3.2.3.2 Bridge Elevation Comparison

In addition to survey points along the FEMA 100-year floodplain, ARCADIS surveyed elevations at the top of several bridges along Portage Creek. Table 3-23 lists the twelve bridges that were measured during the ARCADIS survey. The corresponding top-of-road elevations are listed at these locations from both the ARCADIS survey and from the FEMA HEC-2 model input, along with the differences between the two elevations.

The maximum difference between the bridge elevations is 0.65 feet at the Footbridge (see Figure 3-22). The average difference is 0.2 feet, and half of the measurements are within 0.1 foot of the corresponding elevations in the FEMA HEC-2 input. The differences between these data sets may be a result of settlement or other changes over the approximately 28 years between the FEMA and ARCADIS surveys. These differences are relatively minor, the direction of difference is variable, and results do not suggest any systematic error in survey results.

3.2.3.3 Conclusions

The differences seen in the 100-year floodplain location measurements can most likely be attributed to a combination of use of low-resolution data for HEC-2 model input (considering distances between FEMA transects in Figure 3-22), and the interpolation of the HEC-2 model results onto a topographic map based on widely-spaced contour intervals (10 foot contour intervals appear to have been used).

Given the uncertainty of the HEC-2 model (FEMA generally considers them accurate to 0.5 foot) and the USGS topographic contours, the discrepancies between the FEMA 100-year

floodplain map and the 2007 ARCADIS survey results are relatively minor in most areas. Based on visual observations, and the topographic survey data collected during the 2007 ARCADIS survey, the FEMA map appears to reflect the shape of the floodplain with reasonable accuracy. For example, the FEMA map indicates the steep cement-lined channel south of Reed Avenue will contain the 100-year flood, and based on observations during the recent survey, this appears to be valid. Between Reed Avenue and Stockbridge Avenue, the western floodplain was investigated near the grocery store and its parking lot (roof and parking lot visible along FEMA transect G in Figure 3-22). Although surveyed elevation data in this area are one to two feet higher in 2007 than suggested by the elevations in the FEMA report, the shape of the floodplain reflects a visible dip in the landscape. The discrepancy suggests the limits of the floodplain may be smaller in this area than shown on the FEMA map. These observations indicate good correspondence between topography and the FEMA floodplain boundaries, although the indicated position of the floodplain boundary is not precise with respect to ground elevation in some areas. The lateral extent of the floodplain appears relatively accurate with respect to elevation and floodplain features.

Results indicate that the published FEMA 100-year floodplain is suitable for SRI activities.

4. Former Plainwell Impoundment TCRA Monitoring

The Area 1 SRI/FS Work Plan (ARCADIS BBL 2007a) includes a series of monitoring and assessment activities designed to gauge the results of the TCRA construction activities in the former Plainwell Impoundment. These activities include:

- Surface water sampling upstream and downstream of the former impoundment during construction activities
- Yearling smallmouth bass sampling in the Otsego City Impoundment
- River channel bathymetric surveying along nine previously established transects
- Post-construction surface sediment sampling in removal areas where sediment excavation was completed during the 2007 construction season

4.1 Surface Water Sampling

To assess the effect of construction activities on PCB and solids transport in the Kalamazoo River, surface water was monitored throughout the 2007 construction season upstream and downstream of the former Plainwell Impoundment. The upstream sampling location was the Main Street Bridge in Plainwell, and the downstream sampling location was the Farmer Street Bridge in Otsego. Surface water sampling was initiated on October 3, 2007 following USEPA approval of the *Multi-Area Field Sampling Plan* (Multi-Area FSP; ARCADIS BBL 2007c). Sampling was conducted every other day during the construction season, including weekends. At the upstream location, depth-integrated grab samples were collected from the middle of the channel. At the downstream location, an ISCO automated sampling device was used to collect 24 hourly samples from mid-channel, which were then composited to represent the total downstream transport, accounting for any time when no construction activities are occurring. All samples were submitted to the laboratory for PCB Aroclor and total suspended solids (TSS) analysis.

Surface water monitoring results are presented in Table 4-1. PCBs were not detected in any samples collected upstream or downstream of Plainwell.

4.2 Yearling Smallmouth Bass Sampling

Composite samples of whole-body yearling smallmouth bass were collected in the Otsego City Impoundment in November 2007 and analyzed for PCB and lipid content. A total of five

composite samples of yearling smallmouth bass (two fish in each composite sample) were gathered for analysis of PCB and lipid content.

Table 4-2 summarizes the average length, weight, percent lipid, and total PCB concentration for the five yearling smallmouth bass composite samples collected in 2007. Percent lipid and total PCB concentration were similar between composite samples. Percent lipid among composite samples ranged from 2.3% to 2.9% with an average of 2.6%. Total PCB concentration among composite samples ranged from 2.5 mg/kg to 3.3 mg/kg with an average of 3.0 mg/kg wet-weight.

4.3 Bathymetric Surveying

Bathymetric surveying was performed in the former Plainwell Impoundment in July and September 2006 to establish a pre-construction baseline, and at the end of the 2007 construction season to assess the movement of sediment during the first season of the removal action. To assess changes in bathymetry, the transects established in 2000 by the U.S. Geological Survey (Rheaume, et al., 2002) between the US 131 Bridge and the Plainwell Dam – shown on Figure 4-1 – were targeted for the new survey effort. In July/September 2006, eight of the ten USGS transects were revisited (no data were collected in 2006 at T1 or T2, the two downstream-most locations), and on December 17, 2007 data were collected at nine of the ten (T1, the downstream-most location, was not surveyed because construction of the Phase 1 cofferdam, an element of the TCRA project, prevented access to this area). The 2000 and 2006 data will serve as pre-construction, baseline conditions, while the 2007 data were collected to document the changes associated with the first season of the TCRA. The 2007 bathymetric transect probing data, which are consistent with the 2006 measurements, are presented in Table 4-3. Channel cross-sections for each transect are provided in Appendix E, showing previous cross-sectional data with the 2007 sediment surface.

4.4 Post-Construction Surface Sediment Sampling

Sediment sampling for PCB analysis was conducted in removal areas where excavation activities were completed during the 2007 construction season. The sampling locations were described in a letter work plan, which was approved by USEPA (Saric 2008). Surface sampling was performed on January 22 and 23, 2008. Sediment comprised a range of materials, from fine to coarse sands, gravel, and shells. At three locations the sediment was too coarse to be recovered. The characteristics of the sediment samples are described in Table 4-4, and the sampling locations and results are presented on Figure 4-2. The particle size data and analytical results are presented in Table 4-5 and 4-6 respectively. These data were submitted to the EPA in a letter submittal on March 3, 2008.

5. References

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Tables

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Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-1 – Sediment Core/Probing Data - Kalamazoo River Transects

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT1	KRT1-1	0	2.8	0.80	0.45	Coarse	0 - 0.45	Gray Brown Fine to Medium Sand, Little Coarse Sand
KRT1	KRT1-2	3.9	5.0	3.4	2.3	Coarse	0 - 1.3	Dark Gray Brown Fine to Medium Sand, Trace Organics
							1.3 - 2.3	Dark Gray Brown Fine to Coarse Sand
KRT1	KRT1-3	3.7	1.7	2.3	1.8	Coarse	0 - 0.10	Dark Gray Very Loose Silt
							0.10 - 1.0	Dark Gray Brown Fine to Medium Sand
							1.0 - 1.8	Dark Gray Brown Fine to Coarse Sand
KRT1	KRT1-4	3.0	0.6	1.9	1.4	Coarse	0 - 1.4	Gray Brown Fine to Medium Sand, Little Fine to Medium Gravel, Trace Coarse Sand, Trace Silt
KRT1	KRT1-5	2.1	2.7	2.9	1.8	Coarse	0 - 0.50	Gray Brown Fine to Medium Gravel, Trace Fine to Coarse Sand
							0.50 - 1.8	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT1	KRT1-6	3.2	1.8	2.0	1.7	Coarse	0 - 0.60	Gray Brown Fine Sand, Trace Silt
							0.60 - 1.3	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel
							1.3 - 1.7	Gray Brown Fine to Medium Gravel, Trace Light Gray Clay Like Material
KRT1	KRT1-7	4.1	1.9	2.9	2.3	Coarse	0 - 2.1	Orange Brown Grading to Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
							2.1 - 2.3	Dark Gray Brown Fine to Coarse Sand, Little Fine to Medium Gravel
KRT1	KRT1-8	2.5	0.0	2.9	2.7	Coarse	0 - 1.0	Light Gray Brown Fine to Medium Sand, Trace Coarse Sand
							1.0 - 1.1	Light Gray Brown Fine to Coarse Sand, Little Fine Gravel
							1.1 - 1.7	Light Gray Brown Fine to Medium Sand
							1.7 - 1.8	Brown Root (Wood)
							1.8 - 2.7	Light Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel At Bottom
KRT2	KRT2-1	0	3.5	3.0	2.1	Coarse	0 - 1.1	Dark Gray Brown Fine Sand, Little Silt
							1.1 - 2.1	Gray Brown Fine to Medium Sand, Trace Coarse Sand
KRT2	KRT2-2	5.2	6.0	6.0	5.4	Coarse	0 - 4.1	Brown Grading to Dark Gray Fine to Medium Sand
							4.1 - 5.2	Gray Fine Sand/Silt
KRT2	KRT2-3	3.8	7.8	7.0	6.1	Coarse	0 - 3.6	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							3.6 - 5.0	Gray Brown Grading to Dark Gray Brown Fine Sand
							5.0 - 6.1	Dark Gray Brown Fine Sand/Silt
KRT2	KRT2-4	2.3	7.7	5.3	4.5	Coarse	0 - 2.5	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							2.5 - 3.3	Gray Brown Fine Sand/Silt
							3.3 - 4.5	Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel, Trace Organics (Wood)
KRT2	KRT2-5	1.3	6.2	4.3	3.5	Coarse	0 - 2.4	Gray Brown Fine to Medium Sand, Trace/Little Coarse Sand
							2.4 - 3.5	Gray Fine Sand/Silt
KRT2	KRT2-6	2.6	3.4	2.8	2.3	Fine	0 - 0.60	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							0.60 - 2.3	Gray Brown Fine Sand/Silt

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

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KRT2	KRT2-7	3.2	1.4	1.1	0.90	Fine	0 - 0.70	Gray Brown Fine Sand/Silt
							0.70 - 0.90	Gray Brown Fine to Medium Gravel, Trace Fine to Coarse Sand
KRT2	KRT2-8	0	5.5	4.2	3.1	Fine	0 - 0.50	Dark Brown Fine Sand, Trace Silt
							0.50 - 3.1	Dark Gray Brown Fine Sand/Silt
KRT3	KRT3-1	0.75	1.0	1.2	1.1	Fine	0 - 0.90	Gray Brown Fine Sand/Silt
							0.90 - 1.1	Fine to Medium Gravel, Trace Fine to Medium Sand
KRT3	KRT3-2	3.6	4.6	3.6	2.9	Coarse	0 - 0.50	Dark Gray Brown Fine Sand, Little Silt
							0.50 - 1.9	Gray Fine to Medium Sand, Little Coarse Sand
							1.9 - 2.5	Gray Fine to Medium Sand, Little Coarse Sand, Little Silt
							2.5 - 2.9	Gray Brown Fine to Medium Sand, Trace Coarse Sand
KRT3	KRT3-3	5.3	2.7	2.4	2.0	Coarse	0 - 0.40	Brown Fine Sand/Silt
							0.40 - 2.0	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace/Little Fine to Medium Gravel
KRT3	KRT3-4	6.4	1.5	1.2	0.80	Coarse	0 - 0.80	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel 0.6-0.8 Ft
KRT3	KRT3-5	8.2	1.5	1.5	1.2	Coarse	0 - 0.50	Gray Brown Fine to Medium Sand, Little Coarse Sand
							0.50 - 1.0	Gray Brown Fine to Medium Gravel, Little Fine to Coarse Sand
							1.0 - 1.2	Gray Brown Fine to Medium Sand
KRT3	KRT3-6	6.3	1.3	0.80	0.50	Coarse	0 - 0.50	Gray Brown Fine to Coarse Sand, Little/Some Fine to Medium Gravel
KRT3	KRT3-7	3.1	2.7	2.3	2.1	Coarse	0 - 0.50	Dark Brown Very Loose Fine Sand/Silt
							0.50 - 2.1	Light Gray Fine to Medium Sand, Trace Coarse Sand
KRT3	KRT3-8	0.55	4.6	2.6	2.2	Fine	0 - 1.4	Dark Brown Fine Sand/Silt
							1.4 - 2.2	Light Gray Fine to Medium Sand Grading to Light Gray Fine to Coarse Sand, Little Fine to Medium Gravel At 1.9 ft
KRT4	KRT4-1	0.45	3.7	3.2	2.8	Coarse	0 - 0.80	Dark Gray Brown Fine Sand/Silt
							0.80 - 2.1	Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand
							2.1 - 2.8	Dark Gray Brown Fine to Coarse Sand Grading With Trace/Little Fine to Medium Gravel At ~ 2.5 ft
KRT4	KRT4-2	1.9	7.1	6.0	4.5	Fine	0 - 0.50	Dark Brown Find Sand And Silt
							0.50 - 2.6	Dark Gray Silt/Clay
							2.6 - 3.3	Dark Gray Brown Fine to Medium Sand, Little Coarse Sand
							3.3 - 4.5	Dark Gray Brown Fine Sand/Silt
KRT4	KRT4-3	5.3	5.0	5.0	4.8	Coarse	0 - 0.80	Gray Brown Fine to Medium Sand, Trace Silt
							0.80 - 2.3	Gray Brown Fine to Coarse Sand
							2.3 - 3.6	Dark Gray Brown Fine Sand, Trace Silt
							3.6 - 4.8	Brown Fine Sand

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

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Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT4	KRT4-4	7.0	2.4	2.2	1.9	Coarse	0 - 0.10	Brown Fine Sand
							0.10 - 1.2	Gray Brown Fine to Coarse Sand, Little/Some Fine to Medium Gravel
							1.2 - 1.9	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT4	KRT4-5	8.2	1.3	1.3	1.3	Coarse	0 - 0.50	Brown Fine to Medium Sand, Little Coarse Sand
							0.50 - 1.3	Dark Gray Brown Fine to Coarse Sand, Little Fine to Medium Gravel
KRT4	KRT4-6	3.7	3.5	3.5	3.4	Coarse	0 - 0.050	Brown Loose Silt
							0.050 - 0.80	Gray Brown Fine to Medium Sand, Little Coarse Sand
							0.80 - 1.3	Brown Coarse Sand And Fine Gravel, Trace Fine to Medium Sand
							1.3 - 3.4	Dark Gray Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel
KRT4	KRT4-7	4.6	0.9	0.50	0.30	Coarse	0 - 0.30	Gray Brown Fine to Coarse Sand, Trace Fine Gravel
KRT4	KRT4-8	1.5	2.1	1.8	1.7	Coarse	0 - 0.30	Brown Fine to Medium Sand
							0.30 - 1.7	Light Gray Brown Fine to Medium Sand, Trace Coarse Sand
KRT5	KRT5-1	0	4.5	3.0	2.0	Fine	0 - 1.1	Brown Fine Sand And Silt
							1.1 - 2.0	Gray Brown Fine to Medium Sand, Trace Coarse Sand
KRT5	KRT5-2	3.2	2.2	2.5	2.2	Coarse	0 - 0.80	Brown Fine Sand/Silt
							0.80 - 2.2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel At 2.1-2.2 ft
KRT5	KRT5-3	5.6	5.7	4.9	4.1	Fine	0 - 1.2	Brown Loose Fine Sand And Silt
							1.2 - 3.7	Gray Fine Sand And Silt
							3.7 - 4.1	Gray Fine to Medium Sand, Trace Coarse Sand
KRT5	KRT5-4	8.9	4.1	3.2	2.7	Fine	0 - 0.80	Brown Fine to Medium Sand, Trace Organics
							0.80 - 2.7	Gray Fine Sand/Silt, Trace Organics
KRT5	KRT5-5	9.9	3.7	3.5	2.8	Coarse	0 - 0.60	Brown Fine to Medium Sand, Trace Coarse Sand
							0.60 - 1.4	Gray Fine Sand/Silt
							1.4 - 2.8	Gray Fine to Medium Sand, Little Coarse Sand
KRT5	KRT5-6	9.7	4.2	3.0	2.6	Coarse	0 - 0.50	Brown Fine to Coarse Sand
							0.50 - 1.3	Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand
							1.3 - 2.1	Gray Fine Sand/Silt
							2.1 - 2.6	Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand
KRT5	KRT5-7	7.5	3.3	3.0	2.3	Coarse	0 - 0.10	Brown Loose Silt, Trace Organics
							0.10 - 0.30	Brown Fine to Medium Sand, Little Coarse Sand
							0.30 - 1.1	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							1.1 - 1.7	Gray Fine Sand/Silt, Trace Organics (Wood)
							1.7 - 2.3	Gray Brown Fine to Medium Sand
KRT5	KRT5-8	1.7	3.0	1.5	1.2	Coarse	0 - 0.50	Dark Brown Fine to Medium Sand, Trace Coarse Sand, Trace Organics (Wood)
							0.50 - 1.2	Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Gravel/Cobble (Tube Bottom Bent)

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-1 – Sediment Core/Probing Data - Kalamazoo River Transects

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT6	KRT6-1	1.7	3.2	2.8	2.4	Coarse	0 - 0.50	Dark Gray Brown Fine Sand, Trace Silt
							0.50 - 2.4	Gray Fine to Medium Sand, Trace Coarse Sand, Trace Silt
KRT6	KRT6-2	5.0	5.5	4.5	2.9	Fine	0 - 1.8	Dark Gray Brown Fine Sand And Silt, Trace Organics
							1.8 - 2.9	Gray Fine to Coarse Sand, Trace Fine to Medium Gravel
KRT6	KRT6-3	7.3	4.7	3.8	3.2	Coarse	0 - 0.50	Dark Gray Brown, Fine Sand, Trace Silt, Trace Organics
							0.50 - 3.2	Gray Brown, Fine to Medium Sand, Little Coarse Sand
KRT6	KRT6-4	7.0	4.0	3.5	2.9	Coarse	0 - 2.3	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							2.3 - 2.6	Gray Brown Fine to Medium Gravel
							2.6 - 2.9	Gray Brown Fine to Medium Sand, Trace Coarse Sand
KRT6	KRT6-5	6.5	4.3	4.3	4.0	Coarse	0 - 2.4	Gray Brown, Fine to Medium Sand, Trace Silt
							2.4 - 4.0	Light Gray Brown Fine to Coarse Sand
KRT6	KRT6-6	5.0	2.1	1.9	1.8	Coarse	0 - 0.30	Dark Gray Brown Fine Sand, Little Silt
							0.30 - 1.6	Orange Brown Fine to Medium Sand, Trace Coarse Sand
							1.6 - 1.8	Coarse Gravel
KRT6	KRT6-7	2.0	2.6	2.5	1.9	Fine	0 - 1.9	Dark Gray Brown Fine Sand And Silt, Trace Organics (Wood)
KRT6	KRT6-8	0	1.8	2.0	1.4	Fine	0 - 1.4	Dark Gray Brown Fine Sand And Silt, Trace Organics (Wood)
KRT7	KRT7-1	0	2.9	2.4	1.9	Fine	0 - 0.20	Gray Brown/Fine to Medium Sand/Trace Coarse Sand
							0.20 - 1.9	Dark Gray Brown/Fine Sand And Silt/Trace Organics (Shells)
KRT7	KRT7-2	3.1	3.0	2.0	0.65	Coarse	0 - 0.65	Gray Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium Gravel
KRT7	KRT7-3	3.1	3.7	3.0	2.9	Coarse	0 - 0.50	Orange Brown/Fine to Medium Sand/Trace Coarse Sand
							0.50 - 1.1	Dark Gray Brown/Fine to Coarse Sand/Trace Silt
							1.1 - 1.7	Light Gray/Fine to Medium Sand/Trace Coarse Sand
							1.7 - 2.9	Brown/Fine to Medium Sand
KRT7	KRT7-4	3.0	2.4	2.2	2.0	Coarse	0 - 0.60	Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium Gravel
							0.60 - 2.0	Gray/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium Gravel
KRT7	KRT7-5	2.7	2.1	1.0	0.80	Coarse	0 - 0.80	Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium Gravel
KRT7	KRT7-6	2.3	1.1	1.0	0.75	Coarse	0 - 0.75	Gray Brown/Fine to Coarse Sand/Little Fine to Medium Gravel
KRT7	KRT7-7	2.4	1.2	1.4	1.4	Coarse	0 - 1.4	Gray Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium
KRT7	KRT7-8	1.5	1.0	0.90	0.90	Coarse	0 - 0.10	Fine to Medium Gravel
							0.10- 0.90	Dark Gray/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium Gravel
KRT8	KRT8-1	0	2.5	2.0	1.2	Fine	0 - 1.2	Dark Gray Brown Silt/Clay, Trace Fine Sand

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-1 – Sediment Core/Probing Data - Kalamazoo River Transects

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT8	KRT8-2	0.90	4.4	3.5	2.7	Fine	0 - 0.20	Brown Fine Sand
							0.20 - 2.0	Dark Gray Brown Soft Silt, Trace Fine Sand, Trace Organics
							2.0 - 2.7	Gray Fine to Medium Sand, Trace Coarse Sand
KRT8	KRT8-3	1.6	0.5	1.0	1.0	Coarse	0 - 0.30	Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
							0.30 - 1.0	Dark Gray Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
KRT8	KRT8-4	2.6	5.0	1.8	1.5	Coarse	0 - 0.20	Orange Brown Fine to Medium Sand, Trace Coarse Sand
							0.20 - 1.5	Gray Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
KRT8	KRT8-5	2.7	1.4	1.4	1.2	Coarse	0 - 1.2	Gray Brown Fine to Coarse Sand, Trace/Little Fine to Medium Gravel
KRT8	KRT8-6	2.4	0.3	1.9	1.9	Coarse	0 - 0.20	Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
							0.20 - 0.70	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
							0.70 - 1.9	Gray Fine to Coarse Sand, Trace Fine to Medium Gravel
KRT8	KRT8-7	2.7	0.3	0.60	0.60	Coarse	0 - 0.60	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
KRT8	KRT8-8	0.60	4.5	2.4	1.8	Coarse	0 - 1.1	Dark Gray Brown Fine Sand/Silt
							1.1 - 1.8	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
KRT9	KRT9-1	2.3	1.3	1.0	0.70	Coarse	0 - 0.50	Dark Gray Brown Fine Sand, Trace Silt
							0.50 - 0.70	Dark Gray Brown Fine to Coarse Sand, Trace Fine Gravel
KRT9	KRT9-2	3.4	1.4	1.0	0.95	Fine	0 - 0.20	Brown Fine Sand, Trace Silt, Trace Organics
							0.20 - 0.95	Dark Gray Fine Sand, Trace Silt
KRT9	KRT9-3	3.8	0.6	0.60	0.55	Coarse	0 - 0.20	Brown Fine Sand, Trace Silt
							0.20 - 0.55	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel
KRT9	KRT9-4	6.3	3.1	1.0	0.85	Coarse	0 - 0.85	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT9	KRT9-5	7.2	2.5	1.5	1.3	Coarse	0 - 1.3	Orange Brown Fine to Coarse Sand, Trace/Little Fine to Medium Gravel
KRT9	KRT9-6	5.9	2.4	1.5	1.0	Coarse	0 - 0.20	Gray Brown Fine Sand
							0.20 - 1.0	Gray Brown Fine to Coarse Sand, Trace Fine Gravel
KRT9	KRT9-7	3.1	1.5	0.50	0.35	Coarse	0 - 0.20	Brown Fine Sand
							0.20 - 0.35	Brown Fine to Coarse Sand, Coarse Gravel In Tip of Core (Bottom)
KRT9	KRT9-8	1.5	0.2	0.50	0.40	Fine	0 - 0.40	Dark Brown Loose Silt, Trace Fine Sand, Coarse Gravel In Bottom of Sample
KRT10	KRT10-1	0	4.0	4.0	2.4	Fine	0 - 2.0	Dark Brown Loose Silt, Trace Fine Sand, Trace Organics (Odor/Sheens)
							2.0 - 2.4	Light Brown Fine Sand/Silt

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-1 – Sediment Core/Probing Data - Kalamazoo River Transects

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT10	KRT10-2	2.0	0.4	0.70	0.70	Fine	0 - 0.30	Dark Brown Very Loose Silt
							0.30 - 0.70	Dark Gray Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT10	KRT10-3	2.9	0.6	0.50	0.35	Coarse	0 - 0.35	Brown Fine to Coarse Sand, Little Fine to Medium Gravel
KRT10	KRT10-4	3.2	2.4	1.5	1.4	Coarse	0 - 1.4	Gray Brown Grading to Light Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT10	KRT10-5	3.4	1.9	1.7	1.5	Coarse	0 - 0.30	Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells
							0.30 - 1.5	Light Gray Brown Fine to Coarse Sand, Trace Fine to Medium Gravel
KRT10	KRT10-6	2.2	0.4	0.50	0.50	Coarse	0 - 0.50	Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT10	KRT10-7	1.4	1.1	1.0	0.95	Coarse	0 - 0.25	Brown Fine Sand, Trace Organics
							0.25 - 1.0	Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel
KRT10	KRT10-8	1.2	2.3	2.2	1.8	Coarse	0 - 0.85	Dark Gray Brown Fine Sand, Trace Silt
							0.85 - 1.8	Light Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KRT11	KRT11-1	5.0	2.5	2.0	1.6	Coarse	0 - 1.1	Gray Brown Very Fine Sand to Medium Sand, Trace Shell
							1.1 - 1.3	Gray Fine to Medium Sand
							1.3 - 1.6	Gray Brown Fine to Coarse Sand
KRT11	KRT11-2	7.3	0.1	0	0	Coarse	0 - 0	No Recovery
KRT11	KRT11-3	8.4	2.0	1.8	1.4	Coarse	0 - 0.050	Brown Very Fine Sand
							0.050 - 0.25	Brown Fine Sand
							0.25 - 1.4	Gray Brown Fine to Coarse Sand
KRT11	KRT11-4	9.4	2.6	1.2	0.95	Coarse	0 - 0.050	Brown Fine to Coarse Sand, Gravel
							0.050 - 0.95	Gray Clay (Marbleize)
KRT11	KRT11-5	8.8	1.2	0.60	0.30	Fine	0 - 0.15	Brown Very Fine Sand to Fine Sand
							0.15 - 0.30	Brown Medium to Coarse Sand, Trace Gravel, Trace Shell
KRT11	KRT11-6	5.5	1.5	1.4	1.1	Coarse	0 - 0.40	Gray Brown Very Fine Sand to Fine Sand
							0.40 - 1.1	Gray Brown Fine to Coarse Sand, Trace Gravel
KRT11	KRT11-7	1.9	3.1	2.4	1.8	Coarse	0 - 0.10	Gray Black Very Fine Sand, Silt
							0.10 - 1.8	Gray Medium to Coarse Sand, Fine Gravel, Trace Cobble
KRT11	KRT11-8	0.10	8.5	8.5	4.2	Coarse	0 - 0.10	Dark Black Silt, Very Fine Sand, Leaves
							0.10 - 1.5	Gray Black Fine to Medium Sand
							1.5 - 2.6	Gray Black Fine to Coarse Sand
							2.6 - 2.7	Gray Black Very Fine Sand, Silt
							2.7 - 4.2	Gray Black Medium Sand to Coarse Sand, Trace Gravel
KRT12	KRT12-1	0.80	2.2	2.2	1.8	Fine	0 - 1.8	Black Silt With Gray Fine Sand Over Rock
KRT12	KRT12-2	7.1	0.9	0.80	0.60	Coarse	0 - 0.40	Gravel Over Fine to Medium Sand
							0.40 - 0.60	Gray Clay

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-1 – Sediment Core/Probing Data - Kalamazoo River Transects

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT12	KRT12-3	7.6	1.2	2.3	2.1	Coarse	0 - 1.0	Brown to Gray Medium Sand
							1.0 - 1.6	Gray Fine Sand
							1.6 - 2.1	Gray Black Very Fine Sand to Fine Sand With Trace Silt
KRT12	KRT12-4	6.5	3.8	3.5	2.8	Coarse	0 - 0.90	Brown Medium to Coarse Sand With Shells
							0.90 - 1.5	Gray Black Fine to Medium Sand
							1.5 - 2.8	Gray Black Fine Sand
KRT12	KRT12-5	5.6	1.7	1.5	1.1	Coarse	0 - 0.40	Brown Fine Sand
							0.40 - 1.1	Brown Medium to Coarse Sand With Trace Gravel
KRT12	KRT12-6	4.0	3.7	2.7	2.1	Coarse	0 - 2.1	Gray Black Fine Sand With Trace Leaves
KRT12	KRT12-7	1.6	4.6	3.0	2.6	Coarse	0 - 1.8	Gray Black Fine Sand
							1.8 - 1.9	Brown Medium to Coarse Sand
							1.9 - 2.6	Black Very Fine Sand to Fine Sand
KRT12	KRT12-8	0.50	6.5	3.5	2.5	Fine	0 - 2.5	Gray Black Very Fine Sand to Fine Sand
KRT13	KRT13-1	0.15	1.0	0.60	0.40	Coarse	0 - 0.40	Gray Brown Fine Sand, Roots
KRT13	KRT13-2	2.3	0.1	0.10	0	Coarse	0 - 0	No Recovery
KRT13	KRT13-3	2.7	0.1	0.10	0	Coarse	0 - 0	No Recovery
KRT13	KRT13-4	3.3	0.0	0	0	Coarse	0 - 0	No Recovery
KRT13	KRT13-5	2.8	0.0	0	0	Coarse	0 - 0	No Recovery
KRT13	KRT13-6	2.4	0.0	0	0	Coarse	0 - 0	No Recovery
KRT13	KRT13-7	2.3	0.1	0	0	Coarse	0 - 0	No Recovery
KRT13	KRT13-8	1.1	0.9	0.90	0.80	Fine	0 - 0.10	Brown Fine Sand, Few Shells
							0.10 - 0.80	Gray Very Fine Sand/Silt
KRT14	KRT14-1	0.70	0.6	0.40	0.20	Coarse	0 - 0.20	Gray Brown Fine to Coarse Sand, Trace Gravel
KRT14	KRT14-2	2.0	1.5	1.0	0.60	Coarse	0 - 0.40	Gray Brown Fine Sand
							0.40 - 0.60	Gray Brown Medium to Coarse Sand, Trace Gravel
KRT14	KRT14-3	2.5	1.4	1.4	1.2	Coarse	0 - 0.70	Gray Brown Fine to Medium Sand
							0.70 - 0.80	Gray Black Fine Sand
							0.80 - 1.2	Gray Fine Sand
KRT14	KRT14-4	4.2	1.9	2.0	1.9	Coarse	0 - 0.95	Brown Fine to Coarse Sand, Trace Gravel
							0.95 - 1.9	Gray Fine Sand, Trace Medium Sand
KRT14	KRT14-5	4.1	2.3	1.8	1.3	Coarse	0 - 0.60	Brown Medium to Coarse Sand, Shells
							0.60 - 1.3	Gray Medium to Coarse Sand, Trace Gravel
KRT14	KRT14-6	3.2	0.0	0	0	Coarse	0 - 0	No Recovery
KRT14	KRT14-7	3.7	0.6	0.60	0.45	Coarse	0 - 0.40	Brown Fine to Coarse Sand
							0.40 - 0.50	Brown Coarse Sand, Trace Gravel
KRT14	KRT14-8	0.50	2.1	1.2	1.0	Coarse	0 - 0.80	Gray Brown Fine Sand
							0.80 - 1.0	Gray Brown Fine to Medium Sand
KRT15	KRT15-1	0.10	1.0	1.0	0.80	Coarse	0 - 0.80	Gray Brown Fine Sand, Trace Medium Sand

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-1 – Sediment Core/Probing Data - Kalamazoo River Transects

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KRT15	KRT15-2	1.7	2.8	1.6	1.2	Coarse	0 - 0.30	Gray Brown Fine Sand, Trace Medium to Coarse Sand
							0.30 - 1.2	Gray Black Fine Sand
KRT15	KRT15-3	3.5	4.3	0.80	0.80	Coarse	0 - 0.10	Brown Fine Sand, Trace Gravel, Shell
							0.10 - 0.80	Gray Brown Fine to Medium Sand
KRT15	KRT15-4	4.0	0.4	0.40	0.40	Coarse	0 - 0.40	Brown Fine to Coarse Sand, Trace Gravel
KRT15	KRT15-5	4.0	0.5	0.50	0.15	Coarse	0 - 0.15	Brown Fine Sand Mixed With Coarse Gravel, Some Shells
KRT15	KRT15-6	3.3	1.8	1.4	0.90	Coarse	0 - 0.10	Gravel Rock
							0.10- 0.90	Gray Brown Fine to Medium Sand
KRT15	KRT15-7	2.6	2.2	1.9	1.5	Coarse	0 - 1.5	Fine to Very Coarse Sand Mixture
KRT15	KRT15-8	0.70	2.8	3.0	3.0	Coarse	0 - 0.10	Gray Brown Very Fine Sand, Silt
							0.10 - 2.0	Brown Fine to Medium Sand
							2.0 - 3.0	Brown Fine to Coarse Sand
KRT16	KRT16-1	0.55	4.0	1.5	1.2	Coarse	0 - 1.1	Gray Black Fine Sand, Trace Medium Sand
							1.1 - 1.2	Gravel Rock
KRT16	KRT16-2	4.6	0.1	0	0	Coarse	0 - 0	No Recovery
KRT16	KRT16-3	4.5	0.1	0	0	Coarse	0 - 0	No Recovery
KRT16	KRT16-4	3.4	0.4	0.40	0.20	Coarse	0 - 0.20	Brown Fine to Coarse Sand, Trace Gravel
KRT16	KRT16-5	2.9	0.4	0.40	0.20	Coarse	0 - 0.20	Brown Fine Sand, Trace Organics
KRT16	KRT16-6	1.7	1.6	1.6	1.2	Coarse	0 - 0.10	Brown Very Fine Sand to Fine Sand, Wood
							0.10 - 1.2	Gray Brown Fine Sand
KRT16	KRT16-7	1.5	2.5	2.6	2.2	Coarse	0 - 0.20	Brown Fine Sand
							0.20 - 2.2	Gray Black Fine Sand
KRT16	KRT16-8	0.20	2.0	2.0	1.3	Fine	0 - 0.60	Silt, Very Fine Sand, Gray Black
							0.60 - 1.3	Gray Residual, Wood

Notes:
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-2 – Summary of Sediment Transect Probing Data - Kalamazoo River Transects

Transect	Water Depth		Probing Depth	
	Range (ft)	Mean (ft)	Range (ft)	Mean (ft)
KRT1	0 - 4.1	2.8	0 - 5.0	2.1
KRT2	0 - 5.2	2.3	1.4 - 7.8	5.2
KRT3	0.55 - 8.2	4.3	1.0 - 4.6	2.5
KRT4	0.45 - 8.2	4.1	0.90 - 7.1	3.3
KRT5	0 - 9.9	5.8	2.2 - 5.7	3.8
KRT6	0 - 7.3	4.3	1.8 - 5.5	3.5
KRT7	0 - 3.1	2.3	1.0 - 3.7	2.2
KRT8	0 - 2.7	1.7	0.30 - 5.0	2.4
KRT9	1.5 - 7.2	4.2	0.20 - 3.1	1.6
KRT10	0 - 3.4	2.0	0.40 - 4.0	1.6
KRT11	0.10 - 9.4	5.8	0.10 - 8.5	2.7
KRT12	0.50 - 7.6	4.2	0.90 - 6.5	3.1
KRT13	0.15 - 3.3	2.1	0 - 1.0	0.28
KRT14	0.50 - 4.2	2.6	0 - 2.3	1.3
KRT15	0.10 - 4.0	2.5	0.40 - 4.3	2.0
KRT16	0.20 - 4.6	2.4	0.10 - 4.0	1.4

Notes:
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-3 – Summary of Sediment Core Texture - Kalamazoo River Transects

Transect	Number of Core Locations	Number of Coarse Sediment Locations	Number of Fine Sediment Locations
KRT1	8	8	0
KRT2	8	5	3
KRT3	8	6	2
KRT4	8	7	1
KRT5	8	5	3
KRT6	8	5	3
KRT7	8	7	1
KRT8	8	6	2
KRT9	8	6	2
KRT10	8	6	2
KRT11	8	7	1
KRT12	8	6	2
KRT13	8	7	1
KRT14	8	8	0
KRT15	8	8	0
KRT16	8	7	1
Total	**128**	**104 (81%)**	**24 (19%)**

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-4 – Sediment Core Data - Surficial Sediment Focused Sampling

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KPT19	KP2C-9	5.0	8.1	7.5	6.9	Coarse	0 - 0.10	Wood Debris
							0.10 - 0.90	Gray Brown Fine to Medium Sand, Little Coarse Sand
							0.90 - 3.7	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							3.7 - 5.3	Gray Brown Fine Sand And Silt
							5.3 - 5.9	Dark Brown Organics
							5.9 - 6.9	Gray Brown Fine Sand And Silt
KPT19	KP2F-3	3.4	8.4	7.5	6.2	Fine	0 - 0.90	Dark Gray/Brown, Fine Sand, Trace Silt And Organics
							0.90 - 3.1	Gray/Brown Fine to Medium Sand, Trace Silt
							3.1 - 6.2	Dark Gray Silt/Clay
KPT19	KP2F-4	3.0	6.5	6.0	4.4	Fine	0 - 2.0	Dark Brown Fine Sand, Trace Silt And Organics
							2.0 - 4.4	Dark Gray Silt/Clay
KPT19	KP2F-5	2.1	6.9	5.5	3.8	Fine	0 - 0.40	Dark Gray, Fine Sand And Silt, Trace Organics
							0.40 - 3.1	Dark Gray, Loose Silt, Trace Fine Sand And Organics
							3.1 - 3.8	Dark Gray, Fine to Medium Sand, Trace Coarse Sand, And Trace Silt
KPT20	KP2C-10	4.2	1.5	1.2	0.60	Coarse	0 - 0.30	Gray Brown, Fine to Medium Sand
							0.30 - 0.60	Dark Gray/Black, Fine to Medium Sand
KPT20	KP2F-6	2.4	2.0	1.0	1.0	Coarse	0 - 1.0	Gray Brown Fine Sand And Trace Medium to Coarse Sand
KPT21	KP3C-6	2.1	4.4	3.0	2.6	Coarse	0 - 0.40	Dark Gray Brown/Fine Sand And Silt
							0.40 - 2.6	Dark Gray Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium Gravel/Trace Silt/Trace Organics (Wood)
KPT21	KP3F-4	2.9	0.7	0.50	0.50	Coarse	0 - 0.50	Gray Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium Gravel/Trace Organics (Shells)
KPT22	KP3C-2	2.9	3.8	1.5	1.2	Coarse	0 - 0.70	Dark Gray Brown Fine Sand, Trace Medium to Coarse Sand, Trace Organics
							0.70 - 1.2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Fine to Medium Gravel At Bottom of Sample
KPT22	KP3C-3	5.7	1.6	1.3	1.2	Fine	0 - 0.50	Brown Fine Sand, Trace Silt And Trace Organics
							0.50 - 1.2	Gray Brown Fine Sand, Trace Silt And Trace Organics
KPT22	KP3F-1	5.8	2.6	1.7	1.3	Coarse	0 - 0.70	Dark Gray Brown/Fine Sand/Little Silt
							0.70 - 1.3	Dark Gray/Fine to Coarse Sand/Trace Fine to Medium Gravel/Trace Silt
KPT23	KP3C-4	4.1	2.7	1.5	1.3	Coarse	0 - 0.70	Dark Gray Brown, Fine Sand, Trace Silt, Trace Organics
							0.70 - 1.3	Gray Fine Sand, Trace Medium Sand, Trace Silt, Trace Organics
KPT23	KP3C-5	8.7	3.8	3.5	2.7	Coarse	0 - 1.9	Gray Brown Fine to Medium Sand
							1.9 - 2.3	Gray Brown Fine to Medium Sand, Little Coarse Sand
							2.3 - 2.7	Gray Brown Fine to Medium Gravel, Trace Fine to Coarse Sand
KPT23	KP3F-2	10	1.0	1.0	0.70	Fine	0 - 0.70	Dark Gray Brown Very Loose Silt, Trace Organics, Little Fine Sand, Trace Sheens
KPT23	KP3F-3	6.4	0.6	1.0	1.0	Coarse	0 - 0.50	Dark Gray Brown/Fine Sand And Silt/Little Medium to Coarse Sand/Little Fine to Medium Gravel
							0.50 - 1.0	Gray Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium Gravel

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-4 – Sediment Core Data - Surficial Sediment Focused Sampling

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KPT24	KP3C-10	2.9	0.8	0.80	0.75	Coarse	0 - 0.75	Dark Gray Brown/Fine Sand And Silt/Trace Medium to Coarse Sand From 0.5 to 0.75
KPT24	KP3C-8	1.1	0.6	0.80	0.80	Fine	0 - 0.50	Gray Brown, Very Loose Silt, Trace Fine Sand, Trace Organics
							0.50 - 0.80	Dark Gray to Black Stiff Silt, Trace Fine to Coarse Sand
KPT24	KP3C-9	3.4	3.0	2.0	1.4	Coarse	0 - 0.40	Gray Brown Fine to Medium Sand, Little Coarse Sand
							0.40 - 1.4	Dark Gray Brown Fine Sand, Trace Organics, Fine to Medium Gravel At Bottom of Core
KPT25	KP3C-12	4.7	1.0	1.1	1.1	Coarse	0 - 0.70	Orange Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel
							0.70 - 1.1	Orange Brown Fine to Coarse Sand, Little Fine to Medium Gravel
KPT25	KP3F-5	2.1	3.9	2.0	1.5	Coarse	0 - 0.90	Gray Brown Fine Sand, Trace Silt
							0.90 - 1.5	Gray Fine to Medium Sand, Little Coarse Sand, Trace Silt
KPT25	KP3F-6	2.6	0.8	0.80	0.60	Coarse	0 - 0.60	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium
KPT25	KP3F-7	3.0	2.4	1.5	1.0	Coarse	0 - 1.0	Gray Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel
KPT25	KP3F-8	3.1	3.0	1.5	1.0	Coarse	0 - 0.40	Orange Brown Fine to Medium Sand, Little Coarse Sand
							0.40 - 1.0	Gray Brown Fine to Medium Gravel, Little Fine to Coarse Sand
KPT26	KP3C-1	2.6	0.7	0.80	0.80	Coarse	0 - 0.50	Dark Gray Brown Fine to Coarse Sand
							0.50 - 0.80	Little Fine to Medium Gravel, Gray Fine to Medium Gravel, Little Fine to Coarse Sand
KPT26	KP3C-11	2.7	1.4	0.80	0.75	Coarse	0 - 0.30	Dark Gray Brown/Fine to Medium Sand/Trace Coarse Sand/Fine to Medium Gravel At Surface
							0.30 - 0.80	Orange Brown/Fine to Coarse Sand/Trace Fine to Medium Gravel
KPT27	KP4C-10	3.5	0.6	0.60	0.55	Coarse	0 - 0.30	Dark Gray Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Organics (Shells)
							0.30 - 0.60	Light Gray/Fine to Medium Gravel
KPT27	KP4F-10	1.6	0.9	0.70	0.60	Coarse	0 - 0.60	Dark Gray Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Fine Gravel/Trace Organics (Shells)
KPT28	KP4C-9	2.5	2.3	2.0	1.9	Coarse	0 - 0.30	Gray Brown/Fine Sand/Trace Medium to Coarse Sand
							0.30 - 1.9	Light Gray/Fine to Coarse Sand/Trace Fine to Medium Gravel
KPT28	KP4F-8	1.4	1.9	1.0	0.75	Coarse	0 - 0.30	Gray Brown/Fine Sand
							0.30 - 0.80	Dark Gray Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium Gravel
KPT28	KP4F-9	1.6	2.5	0.70	0.65	Coarse	0 - 0.30	Dark Gray Brown/Fine Sand And Silt/Trace Organics (Wood)
							0.30 - 0.70	Orange Brown/Fine to Coarse Sand/Trace Fine to Medium Gravel
KPT29	KP4C-7	3.3	2.5	2.0	1.7	Coarse	0 - 0.50	Dark Gray Brown/Fine Sand/Silt
							0.50 - 1.7	Light Gray Brown/Fine to Medium Sand/Little Coarse Sand/Trace Gravel
KPT29	KP4F-7	3.5	1.7	1.6	1.5	Fine	0 - 1.1	Dark Gray Brown/Fine Sand/Silt
							1.1 - 1.5	Dark Gray Brown/Fine to Coarse Sand/Trace Fine to Medium Gravel
KPT48	KP6C-7	1.1	4.7	3.5	3.3	Coarse	0 - 3.3	Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Silt
KPT48	KP6C-8	1.6	0.7	0.60	0.60	Coarse	0 - 0.60	Dark Gray Brown Fine to Coarse Sand, Trace Fine to Medium Gravel, Trace Silt
KPT49	KP6C-9	5.6	0.0	0	0	Coarse	0 - 0	Rock/Cobble

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-4 – Sediment Core Data - Surficial Sediment Focused Sampling

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KPT49	KP6F-7	1.7	2.3	2.2	2.0	Fine	0 - 1.5	Dark Brown Very Loose Silt, Trace Fine Sand, Trace Organics
							1.5 - 2.0	Dark Gray Brown Fine Sand, Trace Silt
KPT50	KP6C-14	1.6	1.1	1.1	1.1	Coarse	0 - 0.15	Gray Brown Fine Sand
							0.15 - 1.1	Gray Brown Fine to Medium Gravel, Trace Fine to Coarse Sand
KPT50	KP6F-10	3.6	3.7	3.3	2.4	Fine	0 - 0.10	Orange Brown Fine to Medium Sand
							0.10 - 1.4	Dark Gray/Black Silt, Trace Organics
							1.4 - 2.4	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Silt
KPT50	KP6F-8	2.6	4.7	4.0	3.8	Coarse	0 - 0.50	Dark Gray Brown Fine Sand, Little Silt
							0.50 - 1.3	Dark Gray Brown Fine Sand, Trace Medium to Coarse Sand, Trace Silt
							1.3 - 2.0	Dark Gray Brown Fine Sand/Silt
							2.0 - 3.8	Dark Gray Brown Fine to Medium Sand, Little Coarse Sand
KPT50	KP6F-9	3.4	4.6	3.4	2.9	Coarse	0 - 0.20	Orange Brown Fine to Coarse Sand, Trace Fine Gravel
							0.20 - 1.7	Dark Gray Brown Fine Sand/Silt
							1.7 - 2.9	Gray Brown Fine to Medium Sand, Trace Coarse Sand
KPT51	KP7C-2	0.20	4.1	3.0	2.6	Fine	0 - 1.0	Dark Gray Brown Fine Sand/Silt
							1.0 - 2.6	Orange Brown Fine Sand, Little Silt
KPT51	KP7C-3	3.4	3.7	1.5	1.2	Coarse	0 - 0.20	Orange Brown Fine to Coarse Sand
							0.20 - 1.2	Gray Brown Fine to Medium Sand, Little Silt, Trace Coarse Sand, Trace Fine to Medium Gravel
KPT51	KP7C-4	3.4	0.7	0.80	0.75	Coarse	0 - 0.75	Orange Brown Grading to Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
KPT52	KP7C-7	4.6	1.6	0.90	0.75	Coarse	0 - 0.10	Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
							0.10 - 0.75	Dark Brown Stiff Organic Silt, Trace Organics, Trace Fine Sand
KPT52	KP7F-3	1.5	2.1	1.7	1.6	Coarse	0 - 1.6	Dark Gray Brown Grading to Orange Brown Fine to Medium Sand, Little Silt, Little Coarse Sand, Trace Fine Gravel
KPT52	KP7F-4	1.7	1.3	1.8	1.8	Coarse	0 - 0.10	Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
							0.10 - 0.80	Dark Brown Fine Sand And Silt, Trace Organics
							0.80 - 1.8	Orange Brown Fine to Coarse Sand, Trace/Little Silt, Trace Fine to Medium Gravel
KPT53	KP6C-10	5.6	1.0	1.1	1.1	Coarse	0 - 0.25	Gray Brown Fine to Medium Sand
							0.25 - 0.60	Gray Brown Fine Sand
							0.60 - 1.1	Dark Gray Brown Silt
KPT53	KP6C-11	3.6	2.0	1.6	1.3	Coarse	0 - 1.3	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium
KPT53	KP6C-12	3.9	0.6	0.50	0.50	Coarse	0 - 0.50	Gray Brown Fine Sand, Trace Medium to Coarse Sand, Trace Medium Gravel At Bottom
KPT53	KP6C-13	2.1	2.6	2.2	2.0	Coarse	0 - 1.0	Gray Brown Fine Sand, Trace Medium Sand, Trace Silt
							1.0 - 1.2	Gray Brown Fine to Medium Sand, Trace Coarse Sand
							1.2 - 2.0	Dark Gray Brown Fine Sand
KPT54	KP7C-1	5.6	1.0	1.0	0.95	Coarse	0 - 0.50	Orange Brown Fine to Medium Sand, Little Coarse Sand
							0.50 - 1.0	Dark Gray Brown Silt, Trace Fine Sand

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-4 – Sediment Core Data - Surficial Sediment Focused Sampling

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Penetrated (ft)	Sediment Recovered (ft)	Texture Class	Depth Interval (ft)	Sediment Description
KPT54	KP7F-1	2.1	2.5	2.5	2.2	Fine	0 - 1.7	Dark Gray Brown Very Loose Silt, Little Fine Sand, Trace Organics
							1.7 - 2.2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Silt
KPT54	KP7F-2	4.5	0.8	0.70	0.55	Fine	0 - 0.30	Orange Brown Fine to Medium Sand, Trace Coarse Sand
							0.30 - 0.60	Gray Silt/Clay
KPT56	KP8C-1	2.9	0.4	0.50	0.50	Coarse	0 - 0.50	Gray Brown Fine Sand, Trace Silt, Trace Medium to Coarse Sand, Trace Fine to Medium Gravel
KPT56	KP8F-1	1.7	1.8	1.4	0.90	Fine	0 - 0.50	Dark Gray Brown Fine Sand, Trace Silt, Trace Organics
							0.50 - 0.90	Dark Gray Brown Fine Sand/Silt
KPT56	KP8F-2	2.3	1.3	1.2	0.95	Coarse	0 - 0.95	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells

Notes:
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-5 – Surface Sediment (0-2 inches) Data

Location ID	Sample ID	Sample Date	QC Performed	Aroclor-1016 (mg/kg)	Aroclor-1221 (mg/kg)	Aroclor-1232 (mg/kg)	Aroclor-1242 (mg/kg)	Aroclor-1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Total PCBs (mg/kg)	Solids (%)	Total Organic Carbon (mg/kg)
KP2C-9	K55404	10/11/2007		ND(0.065 U)	ND(0.065 U)	ND(0.065 U)	0.045 J	ND(0.065 U)	0.099	ND(0.065 U)	0.14 J	76.9	4790
KP2C-10	K55406	10/11/2007		ND(0.068 U)	ND(0.068 U)	ND(0.068 U)	ND(0.068 U)	ND(0.068 U)	0.44	0.060 J	0.50 J	73.2	5970
KP2F-3	K55403	10/11/2007		ND(0.071 U)	ND(0.071 U)	ND(0.071 U)	ND(0.071 U)	ND(0.071 U)	0.061 J	ND(0.071 U)	0.061 J	69.6	8900
KP2F-4	K55402	10/11/2007		ND(0.13 U)	ND(0.13 U)	ND(0.13 U)	0.082 J	ND(0.13 U)	0.22	ND(0.13 U)	0.30 J	38.9	60900
KP2F-5	K55400	10/11/2007	MS/MSD	ND(0.075 U)	ND(0.075 U)	ND(0.075 U)	0.38	ND(0.075 UJ)	0.63	ND(0.075 U)	1.0 J	65.9	27100 J
KP2F-5	K55401	10/11/2007	DUP(K55400)	ND(0.15 U)	ND(0.15 U)	ND(0.15 U)	ND(0.15 U)	0.95 J	0.97	0.11 J	2.0 J	65.8	20800
KP2F-6	K55405	10/11/2007		ND(0.088 U)	ND(0.088 U)	ND(0.088 U)	1.2	ND(0.088 U)	0.60	ND(0.088 U)	1.8	57	86000
KP3C-1	K55419	10/12/2007		ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.059 J	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.059 J	84.1	7080
KP3C-2	K55408	10/11/2007		ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	62.4	22300
KP3C-3	K55407	10/11/2007		ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	0.10	0.076	0.069 J	ND(0.069 U)	0.25 J	71.6	7650
KP3C-4	K55411	10/11/2007		ND(0.077 U)	ND(0.077 U)	ND(0.077 U)	ND(0.077 U)	0.12	0.086	ND(0.077 U)	0.21	64.5	12600
KP3C-5	K55410	10/11/2007		ND(0.065 U)	ND(0.065 U)	ND(0.065 U)	0.27	0.17	0.15	0.034 J	0.62 J	76.6	5460
KP3C-6	K55431	10/18/2007	MS/MSD	ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	0.12	0.062 J	0.10	ND(0.078 U)	0.28 J	64.4	22800 J
KP3C-6	K55433	10/18/2007	DUP(K55431)	ND(0.077 U)	ND(0.077 U)	ND(0.077 U)	0.11	0.065 J	0.096	ND(0.077 U)	0.27 J	65.1	13600 J
KP3C-8	K55413	10/12/2007		ND(0.10 U)	ND(0.10 U)	ND(0.10 U)	0.39	ND(0.10 U)	0.52	0.31	1.2	50.4	50900
KP3C-9	K55412	10/12/2007		ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.20	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.20	85.4	12000
KP3C-10	K55428	10/18/2007		ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	0.30	ND(0.078 U)	0.21	ND(0.078 U)	0.51	64.4	12800 J
KP3C-11	K55427	10/18/2007		ND(0.062 U)	ND(0.062 U)	ND(0.062 U)	0.058 J	ND(0.062 U)	0.032 J	ND(0.062 U)	0.090 J	81	8930
KP3C-12	K55415	10/12/2007		ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	83.1	8400
KP3F-1	K55430	10/18/2007		ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	0.067 J	ND(0.069 U)	0.14	0.12	0.33 J	72.1	19000
KP3F-2	K55409	10/11/2007		ND(0.077 U)	ND(0.077 U)	ND(0.077 U)	0.41	ND(0.077 U)	0.19	0.043 J	0.64 J	64.6	15000
KP3F-3	K55429	10/18/2007		ND(0.24 U)	ND(0.24 U)	ND(0.24 U)	1.6	ND(0.24 U)	0.88	ND(0.24 U)	2.5	40.7	89500
KP3F-4	K55432	10/18/2007		ND(0.064 U)	ND(0.064 U)	ND(0.064 U)	0.063 J	ND(0.064 U)	0.038 J	ND(0.064 U)	0.10 J	77.5	11100 J
KP3F-5	K55418	10/12/2007		ND(0.067 U)	ND(0.067 U)	ND(0.067 U)	0.18	ND(0.067 U)	0.13	ND(0.067 U)	0.31	74.1	8430
KP3F-6	K55417	10/12/2007		ND(0.070 U)	ND(0.070 U)	ND(0.070 U)	0.23	ND(0.070 U)	0.23	ND(0.070 U)	0.46	71.2	20800
KP3F-7	K55416	10/12/2007		ND(0.062 U)	ND(0.062 U)	ND(0.062 U)	0.11	0.037 J	0.076	ND(0.062 U)	0.22 J	80.2	18900
KP3F-8	K55414	10/12/2007		ND(0.074 U)	ND(0.074 U)	ND(0.074 U)	0.13	ND(0.074 U)	0.045 J	ND(0.074 U)	0.18 J	68.1	32100
KP4C-7	K55420	10/18/2007		ND(0.31 U)	ND(0.31 U)	ND(0.31 U)	ND(0.31 U)	0.64	0.52	ND(0.31 U)	1.2	16.4	105000
KP4C-9	K55423	10/18/2007		ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	ND(0.078 U)	63.8	24200
KP4C-10	K55425	10/18/2007		ND(0.062 U)	ND(0.062 U)	ND(0.062 U)	0.097	ND(0.062 U)	0.036 J	ND(0.062 U)	0.13 J	79.7	10400
KP4F-7	K55421	10/18/2007		ND(0.25 U)	ND(0.25 U)	ND(0.25 U)	ND(0.25 U)	0.39	0.43	ND(0.25 U)	0.82	19.7	105000
KP4F-8	K55422	10/18/2007		ND(0.080 U)	ND(0.080 U)	ND(0.080 U)	0.24	0.39	0.32	0.052 J	1.0 J	62.1	24700
KP4F-9	K55424	10/18/2007		ND(0.14 U)	ND(0.14 U)	ND(0.14 U)	0.085 J	0.23	0.29	0.072 J	0.68 J	36.1	37800
KP4F-10	K55426	10/18/2007		ND(0.066 U)	ND(0.066 U)	ND(0.066 U)	0.037 J	ND(0.066 U)	ND(0.066 U)	ND(0.066 U)	0.037 J	76	3910
KP6C-7	K55443	10/23/2007		ND(0.059 U)	ND(0.059 UJ)	ND(0.059 U)	0.049 J	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.049 J	85.4	10300

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-5 – Surface Sediment (0-2 inches) Data

Location ID	Sample ID	Sample Date	QC Performed	Aroclor-1016 (mg/kg)	Aroclor-1221 (mg/kg)	Aroclor-1232 (mg/kg)	Aroclor-1242 (mg/kg)	Aroclor-1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Total PCBs (mg/kg)	Solids (%)	Total Organic Carbon (mg/kg)
KP6C-8	K55444	10/23/2007		ND(0.059 U)	ND(0.059 UJ)	ND(0.059 U)	0.14	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.14 J	83.6	20400
KP6C-10	K55436	10/23/2007		ND(0.075 U)	ND(0.075 UJ)	ND(0.075 U)	0.25	ND(0.075 U)	ND(0.075 U)	ND(0.075 U)	0.25 J	66.3	16700
KP6C-11	K55437	10/23/2007		ND(0.065 U)	ND(0.065 UJ)	ND(0.065 U)	0.17	ND(0.065 U)	ND(0.065 U)	ND(0.065 U)	0.17 J	76.8	7260
KP6C-12	K55438	10/23/2007		ND(0.064 U)	ND(0.064 UJ)	ND(0.064 U)	ND(0.064 U)	ND(0.064 U)	ND(0.064 U)	ND(0.064 U)	ND(0.064 UJ)	78.3	5960
KP6C-13	K55439	10/23/2007		ND(0.066 U)	ND(0.066 UJ)	ND(0.066 U)	0.14	0.48	ND(0.066 U)	ND(0.066 U)	0.62 J	75.7	17300
KP6C-14	K55448	10/24/2007		ND(0.053 U)	ND(0.053 UJ)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 UJ)	93.9	18500
KP6F-7	K55445	10/24/2007		ND(0.14 U)	ND(0.14 UJ)	ND(0.14 U)	0.49	0.45	0.41	ND(0.14 U)	1.4 J	34.6	81100
KP6F-8	K55446	10/24/2007	MS/MSD	ND(0.059 U)	ND(0.059 UJ)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 UJ)	84.5	14600 J
KP6F-8	K55447	10/24/2007	DUP(K55446)	ND(0.070 U)	ND(0.070 UJ)	ND(0.070 U)	0.18	ND(0.070 U)	ND(0.070 U)	0.045 J	0.23 J	71.3	31200
KP6F-9	K55449	10/24/2007		ND(0.058 U)	ND(0.058 UJ)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 UJ)	85.7	9670
KP6F-10	K55450	10/24/2007		ND(0.12 U)	ND(0.12 UJ)	ND(0.12 U)	ND(0.12 U)	ND(0.12 U)	ND(0.12 U)	ND(0.12 U)	ND(0.12 UJ)	39.8	67300
KP7C-1	K55441	10/23/2007		ND(0.059 U)	ND(0.059 UJ)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 UJ)	85	19400
KP7C-2	K55451	10/24/2007	MS/MSD	ND(0.80 U)	ND(0.80 UJ)	ND(0.80 U)	ND(0.80 U)	7.8	3.9	0.87	13 J	61.8	35200
KP7C-2	K55452	10/24/2007	DUP(K55451)	ND(0.85 U)	ND(0.85 UJ)	ND(0.85 U)	ND(0.85 U)	9.0	3.8	1.1	14 J	59.2	29200
KP7C-3	K55453	10/24/2007		ND(0.066 U)	ND(0.066 UJ)	ND(0.066 U)	0.078	ND(0.066 U)	ND(0.066 U)	ND(0.066 U)	0.078 J	74.8	3130
KP7C-4	K55454	10/24/2007		ND(0.067 U)	ND(0.067 UJ)	ND(0.067 U)	0.15	ND(0.067 U)	0.063 J	ND(0.067 U)	0.21 J	74.8	4350
KP7C-7	K55456	10/24/2007		ND(0.093 U)	ND(0.093 UJ)	ND(0.093 U)	ND(0.093 U)	ND(0.093 U)	ND(0.093 U)	ND(0.093 U)	ND(0.093 UJ)	53.7	69100
KP7F-1	K55440	10/23/2007		ND(0.84 U)	ND(0.84 UJ)	ND(0.84 U)	ND(0.84 U)	ND(0.84 U)	10	ND(0.84 U)	10 J	59.7	25100
KP7F-2	K55442	10/23/2007		ND(0.060 U)	ND(0.060 UJ)	ND(0.060 U)	0.94	ND(0.060 U)	0.11	ND(0.060 U)	1.1 J	83	9380
KP7F-3	K55455	10/24/2007		ND(0.076 U)	ND(0.076 UJ)	ND(0.076 U)	ND(0.076 U)	0.059 J	ND(0.076 U)	ND(0.076 U)	0.059 J	65.9	18900
KP7F-4	K55457	10/24/2007		ND(0.069 U)	ND(0.069 UJ)	ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	ND(0.069 UJ)	73.1	14600
KP8C-1	K55434	10/22/2007		ND(0.074 U)	ND(0.074 UJ)	0.051 J	ND(0.074 U)	ND(0.074 U)	ND(0.074 U)	ND(0.074 U)	0.051 J	66.6	13800
KP8F-1	K55458	10/22/2007		ND(0.11 U)	ND(0.11 UJ)	ND(0.11 U)	1.2	ND(0.11 U)	0.31	0.065 J	1.6 J	47	25400
KP8F-2	K55435	10/22/2007		ND(0.065 U)	ND(0.065 UJ)	ND(0.065 U)	0.061 J	ND(0.065 U)	ND(0.065 U)	ND(0.065 U)	0.061 J	76.5	8580

Notes:
DUP - Duplicate sample
MS/MSD - Matrix Spike/Matrix Spike Duplicate
ND - Non-detect
J - Indicates an estimated value.
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
UJ - The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
mg/kg - milligrams per kilogram
QC - quality control
PCBs - polychlorinated biphenyls

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-6 – Summary of Surface Sediment (0-2 inches) PCB Data

Sediment Type	Total Number of Samples	Total Number of Detects	Range of Results (mg/kg)	Arithmetic Mean (mg/kg)	Standard Deviation (mg/kg)	Median (mg/kg)
Former Georgia-Pacific Mill Lagoons to Crown Vantage Landfill						
Coarse	22	25	ND - 2.5	0.46	0.59	0.22
Fine	7	7	0.061 - 1.5	0.69	0.54	0.64
All Data	29	32	ND - 2.5	0.51	0.58	0.29
Plainwell No. 2 Dam to Mill Race Confluence						
Coarse	11	17	ND - 0.62	0.12	0.15	0.059
Fine	5	6	ND - 13	4.5	5.6	1.5
All Data	16	23	ND - 13	1.3	3.3	0.078

Notes:
ND - Non-detect
mg/kg - millgrams per kilogram

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-7 – Summary of Surface Sediment (0-2 inches) Total Organic Carbon and Solids Data

Analyte (Units)	Sediment Type	Total Number of Samples	Total Number of Detects	Range of Results	Arithmetic Mean	Standard Deviation	Median
Former Georgia-Pacific Mill Lagoons to Crown Vantage Landfill							
Solids (%)	Coarse	25	25	16 - 85	68	16	72
	Fine	7	7	20 - 72	54	19	65
	All Data	32	32	16 - 85	65	17	69
Total Organic Carbon (mg/kg)	Coarse	25	25	3,910 - 105,000	24,415	27,566	12,800
	Fine	7	7	7,650 - 105,000	38,900	35,750	23,950
	All Data	32	32	3,910 - 105,000	27,583	29,541	16,600
Plainwell No. 2 Dam to Mill Race Confluence							
Solids (%)	Coarse	17	17	54 - 94	76	9.5	77
	Fine	6	6	35 - 83	54	18	53
	All Data	23	23	35 - 94	70	15	75
Total Organic Carbon (mg/kg)	Coarse	17	17	3,130 - 69,100	16,521	14,839	14,600
	Fine	6	6	9,380 - 81,100	40,080	27,814	28,800
	All Data	23	23	3,130 - 81,100	22,667	21,163	17,300

Notes:
mg/kg - milligrams per kilogram

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-8 – Surface Sediment (0-2 inches) Particle Size Data

Location ID	Sample ID	Sample Date	QC Performed	% passing 75000 mm	% passing 50000 mm	% passing 37500 mm	% passing 25000 mm	% passing 19000 mm	% passing 9500 mm	% passing 4750 mm	% passing 2000 mm
KP2C-9	K55404	10/11/2007		100.0	100.0	100.0	100.0	100.0	100.0	96.5	84.9
KP2C-10	K55406	10/11/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.6	99.2
KP2F-3	K55403	10/11/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.6	99.4
KP2F-4	K55402	10/11/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.1	98.0
KP2F-5	K55400	10/11/2007	MS/MSD	100.0	100.0	100.0	100.0	100.0	98.7	92.9	76.3
KP2F-5	K55401	10/11/2007	DUP(K55400)	100.0	100.0	100.0	100.0	100.0	100.0	92.7	79.4
KP2F-6	K55405	10/11/2007		100.0	100.0	100.0	100.0	96.4	79.1	66.2	52.9
KP3C-1	K55419	10/12/2007		100.0	100.0	100.0	100.0	90.0	75.8	54.0	34.2
KP3C-2	K55408	10/11/2007		100.0	100.0	100.0	100.0	100.0	94.4	91.3	87.7
KP3C-3	K55407	10/11/2007		100.0	100.0	100.0	100.0	100.0	99.4	97.5	93.7
KP3C-4	K55411	10/11/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.1	98.1
KP3C-5	K55410	10/11/2007		100.0	100.0	100.0	100.0	100.0	98.9	98.3	95.2
KP3C-6	K55431	10/18/2007	MS/MSD	100.0	100.0	100.0	100.0	100.0	100.0	99.1	97.3
KP3C-6	K55433	10/18/2007	DUP(K55431)	100.0	100.0	100.0	100.0	100.0	99.6	99.0	97.8
KP3C-8	K55413	10/12/2007		100.0	100.0	100.0	100.0	100.0	98.9	98.4	95.8
KP3C-9	K55412	10/12/2007		100.0	100.0	100.0	100.0	100.0	83.9	51.9	27.3
KP3C-10	K55428	10/18/2007		100.0	100.0	100.0	100.0	100.0	99.9	99.1	97.5
KP3C-11	K55427	10/18/2007		100.0	100.0	100.0	100.0	70.3	57.5	45.6	36.1
KP3C-12	K55415	10/12/2007		100.0	100.0	100.0	100.0	65.9	47.4	34.8	24.7
KP3F-1	K55430	10/18/2007		100.0	100.0	100.0	100.0	100.0	99.7	88.4	73.9
KP3F-2	K55409	10/11/2007		100.0	100.0	100.0	100.0	100.0	100.0	97.1	96.5
KP3F-3	K55429	10/18/2007		100.0	100.0	100.0	100.0	42.8	27.8	20.1	13.2
KP3F-4	K55432	10/18/2007		100.0	100.0	100.0	100.0	81.0	75.3	63.0	51.8
KP3F-5	K55418	10/12/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.5	99.2
KP3F-6	K55417	10/12/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.5
KP3F-7	K55416	10/12/2007		100.0	100.0	100.0	100.0	81.3	69.7	57.6	45.6
KP3F-8	K55414	10/12/2007		100.0	100.0	100.0	100.0	100.0	93.0	83.0	68.3
KP4C-7	K55420	10/18/2007		100.0	100.0	100.0	100.0	100.0	99.9	98.9	98.7
KP4C-9	K55423	10/18/2007		100.0	100.0	100.0	100.0	100.0	82.2	68.2	50.6
KP4C-10	K55425	10/18/2007		100.0	100.0	100.0	100.0	67.4	50.2	36.2	27.0

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-8 – Surface Sediment (0-2 inches) Particle Size Data

Location ID	Sample ID	Sample Date	QC Performed	% passing 850 mm	% passing 425 mm	% passing 250 mm	% passing 180 mm	% passing 150 mm	% passing 75 mm	% passing 32 mm	% passing 21 mm
KP2C-9	K55404	10/11/2007		61.1	31.8	9.6	5.4	4.1	3.1	0.6	0.6
KP2C-10	K55406	10/11/2007		97.9	89.1	49.7	19.5	13.2	7.9	3.1	2.5
KP2F-3	K55403	10/11/2007		98.8	95.2	84.4	50.9	29.7	4.3	1.7	1.7
KP2F-4	K55402	10/11/2007		97.3	95.1	89.0	71.8	55.6	22.1	4.1	3.1
KP2F-5	K55400	10/11/2007	MS/MSD	65.6	48.1	26.5	16.9	13.6	9.5	3.7	3.7
KP2F-5	K55401	10/11/2007	DUP(K55400)	66.9	49.2	27.5	17.8	14.5	10.4	3.7	3.1
KP2F-6	K55405	10/11/2007		42.7	33.8	24.4	16.9	13.1	6.2	4.6	3.8
KP3C-1	K55419	10/12/2007		24.5	14.9	6.9	4.0	3.2	1.2	0.8	0.3
KP3C-2	K55408	10/11/2007		84.3	79.0	63.0	36.0	26.1	12.7	6.7	6.0
KP3C-3	K55407	10/11/2007		88.1	77.3	49.1	23.5	15.7	5.8	1.8	1.8
KP3C-4	K55411	10/11/2007		96.9	92.7	75.5	47.8	35.8	14.8	3.2	2.5
KP3C-5	K55410	10/11/2007		84.8	60.6	19.5	5.2	3.6	2.6	1.1	1.1
KP3C-6	K55431	10/18/2007	MS/MSD	96.0	93.9	84.8	46.7	26.3	2.6	1.9	1.9
KP3C-6	K55433	10/18/2007	DUP(K55431)	96.7	94.5	85.2	48.4	29.0	6.4	1.9	1.9
KP3C-8	K55413	10/12/2007		93.2	90.3	84.6	69.1	59.1	23.5	5.4	4.1
KP3C-9	K55412	10/12/2007		17.0	10.2	4.9	1.7	1.2	0.5	0.0	0.0
KP3C-10	K55428	10/18/2007		94.8	85.7	61.2	33.7	20.1	2.8	2.5	1.9
KP3C-11	K55427	10/18/2007		29.6	20.7	12.8	6.6	4.0	0.8	0.8	0.8
KP3C-12	K55415	10/12/2007		17.9	8.3	4.1	2.2	1.6	0.9	0.0	0.0
KP3F-1	K55430	10/18/2007		64.6	54.2	27.2	11.8	8.0	5.5	1.2	1.2
KP3F-2	K55409	10/11/2007		94.8	92.5	85.4	51.7	29.6	3.9	3.9	3.3
KP3F-3	K55429	10/18/2007		7.8	4.3	2.8	2.3	2.0	1.6	0.9	0.9
KP3F-4	K55432	10/18/2007		45.1	33.8	18.3	8.3	5.8	2.8	2.4	2.0
KP3F-5	K55418	10/12/2007		98.9	98.1	91.6	57.7	37.9	5.0	1.6	1.1
KP3F-6	K55417	10/12/2007		99.1	97.0	79.2	34.7	21.4	5.0	2.9	1.0
KP3F-7	K55416	10/12/2007		36.7	24.1	9.2	4.1	3.2	2.1	0.3	0.0
KP3F-8	K55414	10/12/2007		53.2	29.8	16.3	9.8	7.9	4.5	1.3	0.6
KP4C-7	K55420	10/18/2007		97.4	96.4	95.2	94.0	93.4	89.3	63.2	37.0
KP4C-9	K55423	10/18/2007		38.6	25.4	11.6	7.2	5.8	2.9	1.5	1.5
KP4C-10	K55425	10/18/2007		21.1	14.7	7.3	5.1	4.6	3.7	0.4	0.4

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-8 – Surface Sediment (0-2 inches) Particle Size Data

Location ID	Sample ID	Sample Date	QC Performed	% passing 12.6 mm	% passing 9.0 mm	% passing 6.5 mm	% passing 3.2 mm	% passing 1.4 mm	Silt (%)	Clay (%)	Fine Sand (%)	Medium Sand (%)	Coarse Sand (%)	Gravel (%)
KP2C-9	K55404	10/11/2007		0.6	0.6	0.1	0.0	0.0	3.1	0.1	28.7	53.1	11.6	3.5
KP2C-10	K55406	10/11/2007		2.4	1.3	1.2	1.2	1.2	6.7	1.2	81.2	10.1	0.4	0.4
KP2F-3	K55403	10/11/2007		1.7	1.2	0.6	0.5	0.0	3.6	0.6	90.9	4.3	0.1	0.4
KP2F-4	K55402	10/11/2007		3.1	3.1	2.1	1.0	0.0	19.9	2.1	73.0	2.9	1.1	0.9
KP2F-5	K55400	10/11/2007	MS/MSD	3.1	2.5	1.9	1.3	1.2	7.6	1.9	38.6	28.2	16.7	7.1
KP2F-5	K55401	10/11/2007	DUP(K55400)	2.5	1.9	1.3	0.7	0.0	9.2	1.3	38.7	30.2	13.3	7.3
KP2F-6	K55405	10/11/2007		2.3	1.5	0.9	0.0	0.0	5.3	0.9	27.6	19.1	13.3	33.8
KP3C-1	K55419	10/12/2007		0.3	0.3	0.0	0.0	0.0	1.2	0.0	13.8	19.2	19.8	46.0
KP3C-2	K55408	10/11/2007		4.0	3.4	2.7	2.0	1.3	10.0	2.7	66.4	8.7	3.5	8.7
KP3C-3	K55407	10/11/2007		1.2	0.6	0.6	0.0	0.0	5.2	0.6	71.5	16.3	3.8	2.5
KP3C-4	K55411	10/11/2007		1.9	1.2	0.6	0.1	0.0	14.2	0.6	77.9	5.4	1.0	0.9
KP3C-5	K55410	10/11/2007		1.1	0.5	0.0	0.0	0.0	2.6	0.0	57.9	34.6	3.1	1.7
KP3C-6	K55431	10/18/2007	MS/MSD	1.2	1.2	0.6	0.0	0.0	2.0	0.6	91.3	3.4	1.8	0.9
KP3C-6	K55433	10/18/2007	DUP(K55431)	1.9	1.3	0.8	0.8	0.3	5.6	0.8	88.1	3.3	1.2	1.0
KP3C-8	K55413	10/12/2007		3.4	2.7	2.0	0.0	0.0	21.4	2.0	66.8	5.5	2.6	1.6
KP3C-9	K55412	10/12/2007		0.0	0.0	0.0	0.0	0.0	0.9	0.0	9.6	17.1	24.6	48.1
KP3C-10	K55428	10/18/2007		1.9	1.2	0.6	0.5	0.6	2.2	0.6	82.9	11.8	1.6	0.9
KP3C-11	K55427	10/18/2007		0.8	0.5	0.2	0.2	0.2	0.6	0.2	19.9	15.4	9.4	54.4
KP3C-12	K55415	10/12/2007		0.0	0.0	0.0	0.0	0.0	1.2	0.0	7.4	16.4	10.1	65.2
KP3F-1	K55430	10/18/2007		0.8	0.8	0.4	0.0	0.0	5.1	0.4	48.7	19.7	14.5	11.6
KP3F-2	K55409	10/11/2007		2.6	2.6	2.0	1.2	1.2	2.0	2.0	88.6	4.0	0.6	2.9
KP3F-3	K55429	10/18/2007		0.7	0.3	0.2	0.2	0.2	1.4	0.2	2.7	8.8	7.0	79.9
KP3F-4	K55432	10/18/2007		1.3	1.3	0.9	0.9	0.5	1.9	0.9	31.0	18.0	11.2	37.0
KP3F-5	K55418	10/12/2007		1.1	0.5	0.0	0.0	0.0	5.0	0.0	93.1	1.2	0.3	0.5
KP3F-6	K55417	10/12/2007		0.5	0.5	0.0	0.0	0.0	5.1	0.0	92.0	2.5	0.3	0.1
KP3F-7	K55416	10/12/2007		0.0	0.0	0.0	0.0	0.0	2.4	0.0	22.0	21.6	12.0	42.4
KP3F-8	K55414	10/12/2007		0.6	0.6	0.0	0.0	0.0	4.5	0.0	25.3	38.5	14.7	17.0
KP4C-7	K55420	10/18/2007		30.9	22.8	18.8	10.1	6.0	70.4	18.8	7.1	2.4	0.2	1.1
KP4C-9	K55423	10/18/2007		1.1	1.1	0.5	0.5	0.5	2.4	0.5	22.4	25.3	17.6	31.8
KP4C-10	K55425	10/18/2007		0.4	0.4	0.0	0.0	0.0	4.0	0.0	11.0	12.3	9.2	63.8

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-8 – Surface Sediment (0-2 inches) Particle Size Data

Location ID	Sample ID	Sample Date	QC Performed	% passing 75000 mm	% passing 50000 mm	% passing 37500 mm	% passing 25000 mm	% passing 19000 mm	% passing 9500 mm	% passing 4750 mm	% passing 2000 mm
KP4F-7	K55421	10/18/2007		100.0	100.0	100.0	100.0	100.0	92.4	91.2	90.1
KP4F-8	K55422	10/18/2007		100.0	100.0	100.0	100.0	88.8	80.0	71.3	65.6
KP4F-9	K55424	10/18/2007		100.0	100.0	100.0	100.0	82.9	56.3	45.7	38.5
KP4F-10	K55426	10/18/2007		100.0	100.0	100.0	100.0	100.0	95.8	90.4	82.9
KP6C-7	K55443	10/23/2007		100.0	100.0	100.0	100.0	100.0	86.2	70.2	39.8
KP6C-8	K55444	10/23/2007		100.0	100.0	100.0	100.0	92.0	79.2	70.0	33.7
KP6C-10	K55436	10/23/2007		100.0	100.0	100.0	100.0	100.0	95.3	93.0	90.2
KP6C-11	K55437	10/23/2007		100.0	100.0	100.0	100.0	96.1	92.1	77.3	55.7
KP6C-12	K55438	10/23/2007		100.0	100.0	100.0	100.0	100.0	96.2	86.0	69.0
KP6C-13	K55439	10/23/2007		100.0	100.0	100.0	100.0	86.5	85.9	80.2	64.1
KP6C-14	K55448	10/24/2007		100.0	100.0	100.0	100.0	96.6	78.3	42.2	11.8
KP6F-7	K55445	10/24/2007		100.0	100.0	100.0	100.0	100.0	99.8	99.2	98.1
KP6F-8	K55446	10/24/2007	MS/MSD	100.0	100.0	100.0	100.0	100.0	96.7	69.1	39.3
KP6F-8	K55447	10/24/2007	DUP(K55446)	100.0	100.0	100.0	100.0	94.3	77.9	53.4	29.3
KP6F-9	K55449	10/24/2007		100.0	100.0	100.0	100.0	93.0	90.6	78.5	46.1
KP6F-10	K55450	10/24/2007		100.0	100.0	100.0	100.0	100.0	98.2	95.7	91.9
KP7C-1	K55441	10/23/2007		100.0	100.0	100.0	100.0	96.8	84.5	69.4	34.7
KP7C-2	K55451	10/24/2007	MS/MSD	100.0	100.0	100.0	100.0	99.2	98.5	91.4	80.3
KP7C-2	K55452	10/24/2007	DUP(K55451)	100.0	100.0	100.0	100.0	100.0	92.4	87.6	82.6
KP7C-3	K55453	10/24/2007		100.0	100.0	100.0	100.0	100.0	93.6	87.3	72.8
KP7C-4	K55454	10/24/2007		100.0	100.0	100.0	100.0	76.1	59.3	53.2	47.2
KP7C-7	K55456	10/24/2007		100.0	100.0	100.0	100.0	74.5	63.2	55.1	41.1
KP7F-1	K55440	10/23/2007		100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.2
KP7F-2	K55442	10/23/2007		100.0	100.0	100.0	100.0	84.5	48.3	33.4	19.9
KP7F-3	K55455	10/24/2007		100.0	100.0	100.0	100.0	91.1	85.0	77.5	64.6
KP7F-4	K55457	10/24/2007		100.0	100.0	100.0	100.0	100.0	100.0	96.1	89.8
KP8C-1	K55434	10/22/2007		100.0	100.0	100.0	100.0	83.8	57.0	48.4	41.1
KP8F-1	K55458	10/22/2007		100.0	100.0	100.0	100.0	99.9	99.8	99.4	97.6
KP8F-2	K55435	10/22/2007		100.0	100.0	100.0	100.0	100.0	89.4	82.9	72.6

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-8 – Surface Sediment (0-2 inches) Particle Size Data

Location ID	Sample ID	Sample Date	QC Performed	% passing 850 mm	% passing 425 mm	% passing 250 mm	% passing 180 mm	% passing 150 mm	% passing 75 mm	% passing 32 mm	% passing 21 mm
KP4F-7	K55421	10/18/2007		88.0	86.8	84.4	81.5	79.5	69.4	44.4	19.9
KP4F-8	K55422	10/18/2007		63.4	59.5	47.0	24.6	15.8	3.9	3.7	3.2
KP4F-9	K55424	10/18/2007		34.1	27.5	18.0	12.4	9.0	3.3	3.0	2.6
KP4F-10	K55426	10/18/2007		76.1	60.0	26.7	11.0	7.2	2.9	1.0	1.0
KP6C-7	K55443	10/23/2007		29.8	23.9	12.3	3.9	2.0	0.5	1.0	1.0
KP6C-8	K55444	10/23/2007		20.7	14.0	10.2	7.0	5.9	4.5	0.9	0.9
KP6C-10	K55436	10/23/2007		87.4	72.6	26.9	12.4	9.7	5.9	4.3	3.8
KP6C-11	K55437	10/23/2007		37.5	20.2	8.4	4.1	3.4	2.6	0.2	0.2
KP6C-12	K55438	10/23/2007		62.6	49.7	21.2	9.8	6.9	2.7	1.7	1.7
KP6C-13	K55439	10/23/2007		59.4	55.4	39.3	22.3	15.5	5.0	2.3	2.3
KP6C-14	K55448	10/24/2007		9.1	8.1	6.1	3.5	2.6	1.1	0.5	0.5
KP6F-7	K55445	10/24/2007		97.0	96.0	92.7	84.4	76.1	45.3	20.5	17.2
KP6F-8	K55446	10/24/2007	MS/MSD	33.2	29.3	23.4	14.9	10.6	4.3	1.9	1.9
KP6F-8	K55447	10/24/2007	DUP(K55446)	25.2	22.6	18.3	11.7	8.4	3.3	2.1	2.1
KP6F-9	K55449	10/24/2007		28.0	11.6	2.8	1.8	1.6	1.6	0.6	0.6
KP6F-10	K55450	10/24/2007		86.1	76.0	69.5	67.0	65.5	57.0	32.9	28.4
KP7C-1	K55441	10/23/2007		25.9	18.5	8.8	5.0	3.7	2.3	0.6	0.6
KP7C-2	K55451	10/24/2007	MS/MSD	73.7	59.2	36.4	26.4	23.4	16.6	8.4	7.5
KP7C-2	K55452	10/24/2007	DUP(K55451)	72.7	56.9	34.0	23.3	19.9	12.9	10.3	8.9
KP7C-3	K55453	10/24/2007		52.1	39.1	25.5	14.8	10.3	4.6	1.7	1.7
KP7C-4	K55454	10/24/2007		42.1	30.5	12.2	6.8	5.1	1.5	1.3	1.3
KP7C-7	K55456	10/24/2007		35.9	28.7	23.0	21.0	20.1	9.4	8.1	6.3
KP7F-1	K55440	10/23/2007		97.6	96.0	85.7	51.8	35.8	12.0	7.7	6.9
KP7F-2	K55442	10/23/2007		14.4	9.2	4.9	3.0	2.3	0.9	1.0	1.0
KP7F-3	K55455	10/24/2007		54.6	39.7	27.7	21.0	16.9	9.8	6.8	6.0
KP7F-4	K55457	10/24/2007		82.0	64.2	37.5	22.9	18.6	12.3	10.6	8.9
KP8C-1	K55434	10/22/2007		36.9	32.1	20.8	11.3	8.6	3.9	2.9	2.9
KP8F-1	K55458	10/22/2007		96.6	93.3	72.1	44.2	34.6	10.1	4.6	3.8
KP8F-2	K55435	10/22/2007		65.1	54.7	27.3	9.7	7.1	4.9	1.1	0.7

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-8 – Surface Sediment (0-2 inches) Particle Size Data

Location ID	Sample ID	Sample Date	QC Performed	% passing 12.6 mm	% passing 9.0 mm	% passing 6.5 mm	% passing 3.2 mm	% passing 1.4 mm	Silt (%)	Clay (%)	Fine Sand (%)	Medium Sand (%)	Coarse Sand (%)	Gravel (%)
KP4F-7	K55421	10/18/2007		16.4	12.9	9.4	5.3	3.5	60.1	9.4	17.4	3.3	1.1	8.8
KP4F-8	K55422	10/18/2007		2.7	2.2	1.6	1.0	0.5	2.3	1.6	55.7	6.0	5.7	28.7
KP4F-9	K55424	10/18/2007		1.8	1.3	0.9	0.4	0.0	2.4	0.9	24.2	11.0	7.3	54.3
KP4F-10	K55426	10/18/2007		1.0	0.4	0.4	0.0	0.0	2.4	0.4	57.2	22.9	7.4	9.6
KP6C-7	K55443	10/23/2007		0.6	0.6	0.6	0.6	0.2	0.0	0.6	23.4	15.9	30.4	29.8
KP6C-8	K55444	10/23/2007		0.5	0.5	0.2	0.2	0.2	4.3	0.2	9.5	19.7	36.3	30.0
KP6C-10	K55436	10/23/2007		3.2	2.6	2.0	2.0	0.9	3.9	2.0	66.7	17.6	2.9	7.0
KP6C-11	K55437	10/23/2007		0.2	0.2	0.2	0.2	0.2	2.4	0.2	17.6	35.5	21.6	22.7
KP6C-12	K55438	10/23/2007		1.7	1.2	1.2	1.1	0.7	1.5	1.2	47.0	19.4	16.9	14.0
KP6C-13	K55439	10/23/2007		2.3	1.8	1.8	1.2	1.2	3.2	1.8	50.4	8.7	16.1	19.8
KP6C-14	K55448	10/24/2007		0.5	0.1	0.1	0.1	0.0	0.9	0.1	7.0	3.7	30.4	57.8
KP6F-7	K55445	10/24/2007		13.9	11.7	9.5	6.1	3.9	35.8	9.5	50.7	2.1	1.1	0.8
KP6F-8	K55446	10/24/2007	MS/MSD	1.5	1.1	0.7	0.6	0.6	3.7	0.7	25.0	10.0	29.8	30.9
KP6F-8	K55447	10/24/2007	DUP(K55446)	1.7	1.7	1.3	0.9	0.6	2.0	1.3	19.2	6.7	24.1	46.6
KP6F-9	K55449	10/24/2007		0.2	0.2	0.2	0.2	0.0	1.3	0.2	10.0	34.5	32.5	21.5
KP6F-10	K55450	10/24/2007		22.8	18.4	15.0	11.6	6.1	42.0	15.0	19.0	15.9	3.8	4.3
KP7C-1	K55441	10/23/2007		0.6	0.6	0.6	0.6	0.5	1.7	0.6	16.2	16.2	34.7	30.6
KP7C-2	K55451	10/24/2007	MS/MSD	5.9	4.3	3.6	2.8	2.0	13.1	3.6	42.6	21.1	11.1	8.6
KP7C-2	K55452	10/24/2007	DUP(K55451)	7.4	5.3	4.6	4.6	1.7	8.3	4.6	44.0	25.7	5.0	12.4
KP7C-3	K55453	10/24/2007		1.7	1.2	0.7	0.7	0.7	3.8	0.7	34.5	33.7	14.5	12.7
KP7C-4	K55454	10/24/2007		1.0	0.7	0.7	0.7	0.4	0.8	0.7	29.0	16.7	6.0	46.8
KP7C-7	K55456	10/24/2007		6.3	4.6	3.7	3.0	1.2	5.7	3.7	19.2	12.5	14.0	44.9
KP7F-1	K55440	10/23/2007		6.1	4.5	3.6	2.8	2.0	8.4	3.6	84.0	3.1	0.7	0.2
KP7F-2	K55442	10/23/2007		1.0	1.0	0.6	0.5	0.5	0.3	0.6	8.3	10.7	13.5	66.6
KP7F-3	K55455	10/24/2007		5.3	4.1	3.3	3.3	1.3	6.5	3.3	29.9	24.9	12.8	22.5
KP7F-4	K55457	10/24/2007		7.3	5.7	4.6	4.6	1.9	7.8	4.6	51.9	25.6	6.3	3.9
KP8C-1	K55434	10/22/2007		2.4	1.8	0.7	0.7	0.3	3.1	0.7	28.3	9.0	7.4	51.6
KP8F-1	K55458	10/22/2007		3.8	2.4	2.4	2.5	1.0	7.7	2.4	83.2	4.3	1.7	0.6
KP8F-2	K55435	10/22/2007		0.7	0.7	0.2	0.2	0.2	4.7	0.2	49.8	17.9	10.3	17.1

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-9– Summary of Surface Sediment (0-2 inches) Particle Size Distribution

Particle Size (mm)	Total Number of Samples	Minimum (percent passing)	Maximum (percent passing)	Average Percent Finer	Median Percent Finer
Former Georgia-Pacific Mill Lagoons to Crown Vantage Landfill					
1.4	32	0.0	6.0	0.4	0.0
3.2	32	0.0	10	0.7	0.2
6.5	32	0.0	19	1.5	0.6
9.0	32	0.0	23	2.1	1.2
12.6	32	0.0	31	2.8	1.3
21	32	0.0	37	3.5	1.8
32	32	0.0	63	5.4	1.9
75	32	0.5	89	10	4.1
150	32	1.2	93	21	13
180	32	1.7	94	27	17
250	32	2.8	95	43	27
425	32	4.3	98	57	60
850	32	7.8	99	66	71
2000	32	13	100	72	84
4750	32	20	100	79	91
9500	32	28	100	86	97
19000	32	43	100	93	100
25000	32	100	100	100	100
37500	32	100	100	100	100
50000	32	100	100	100	100
75000	32	100	100	100	100
Clay	32	0.0	19	1.5	0.6
Silt	32	0.6	70	8.8	3.7
Fine Sand	32	2.7	93	47	44
Medium Sand	32	1.2	53	15	12
Coarse Sand	32	0.1	25	7.2	6.4
Gravel	32	0.1	80	21	8.8

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-9– Summary of Surface Sediment (0-2 inches) Particle Size Distribution

Particle Size (mm)	Total Number of Samples	Minimum (percent passing)	Maximum (percent passing)	Average Percent Finer	Median Percent Finer
Plainwell No. 2 Dam to Mill Race Confluence					
1.4	23	0.0	6.1	1.1	0.7
3.2	23	0.1	12	2.1	0.8
6.5	23	0.1	15	2.5	1.0
9.0	23	0.1	18	3.1	1.4
12.6	23	0.2	23	3.9	1.7
21	23	0.2	28	4.6	2.0
32	23	0.2	33	5.3	2.0
75	23	0.5	57	9.4	4.6
150	23	1.6	76	17	9.5
180	23	1.8	84	20	12
250	23	2.8	93	30	23
425	23	8.1	96	44	39
850	23	9.1	98	53	52
2000	23	12	99	61	64
4750	23	33	100	76	79
9500	23	48	100	85	89
19000	23	75	100	94	97
25000	23	100	100	100	100
37500	23	100	100	100	100
50000	23	100	100	100	100
75000	23	100	100	100	100
Clay	23	0.1	15	2.5	1.0
Silt	23	0.0	42	6.9	3.8
Fine Sand	23	7.0	84	35	29
Medium Sand	23	2.1	36	16	16
Coarse Sand	23	0.7	36	15	14
Gravel	23	0.2	67	24	22

Notes:
mm - millimeter

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Upland Soil Location			
FPT-01-091_07303	341260.8	12781364.7	730.0
FPT-01-092_07303	341283.4	12781383.6	725.6
FPT-01-093_07303	341297.4	12781392.1	722.6
FPT-01-094_07303	341362.9	12781482.0	721.8
FPT-01-095_07303	341434.6	12781582.3	722.5
FPT-01-096_07303	341510.6	12781687.0	723.3
FPT-01-097_07303	341526.6	12781706.6	723.7
FPT-01-098_07303	341534.2	12781717.7	723.9
FPT-01-099_07303	341537.3	12781722.8	723.2
FPT-01-100_07303	341539.6	12781727.2	722.1
FPT-02-092_07303	341439.7	12782179.1	725.9
FPT-02-093_07303	341438.6	12782166.4	726.5
FPT-02-094_07303	341421.2	12782137.3	722.4
FPT-02-095_07303	341414.1	12782109.7	720.9
FPT-02-096_07303	341412.9	12782082.4	721.8
FPT-02-097_07303	341415.1	12782007.8	723.1
FPT-02-098_07303	341415.6	12781969.6	722.6
FPT-02-099_07303	341419.1	12781939.2	723.0
FPT-02-100_07303	341419.1	12781938.4	721.2
FPT-03-B_07310	341212.5	12782130.0	723.4
FPT-03-BB@EWA_20071108	341177.5	12781995.9	721.7
FPT-03-BB1_20071108	341243.3	12782259.4	723.6
FPT-03-BB2_20071108	341193.0	12782039.3	722.8
FPT-03-GRD_20071108	341198.2	12782068.4	724.1
FPT-03-TB@EWA_20071108	341177.8	12781995.8	723.5
FPT-03-TB_20071108	341254.4	12782297.4	726.5
FPT-04-B_07310	341024.2	12782285.5	723.6
FPT-04-BB@EWA_20071108	340925.9	12782169.9	720.1
FPT-04-BB_20071108	341118.4	12782406.7	723.8
FPT-04-GRD1_20071108	340973.2	12782225.8	724.0
FPT-04-GRD2_20071108	341076.0	12782349.4	724.1
FPT-04-GRD3??_20071108	341135.4	12782428.6	726.3
FPT-04-TB@EWA_20071108	340930.2	12782175.9	725.9
FPT-05-094_07303	340212.9	12782466.3	723.6
FPT-05-095_07303	340447.2	12782135.5	723.4
FPT-05-096_07303	340520.2	12782053.9	723.1
FPT-05-097_07303	340671.0	12781842.4	723.1
FPT-05-098_07303	340725.9	12781758.6	723.6
FPT-05-099_07303	340787.0	12781677.8	723.0
FPT-05-100_07303	340855.7	12781613.8	723.1
FPT-06-091-GRD_07304	340102.9	12782275.5	723.9
FPT-06-092-GRD_07304	340184.2	12782155.8	723.8

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Upland Soil Location (Cont'd.)			
FPT-06-093-GRD_07304	340231.6	12781992.3	723.5
FPT-06-094-GRD_07304	340295.6	12781842.6	722.9
FPT-06-095-GRD_07304	340331.0	12781718.0	723.7
FPT-06-096-GRD_07304	340408.1	12781618.6	723.2
FPT-06-097-GRD_07304	340525.6	12781509.9	723.2
FPT-06-098-TB_07304	340593.5	12781427.4	723.4
FPT-06-099-BB_07304	340620.0	12781357.8	722.8
FPT-06-100-TB_07304	340617.6	12781337.2	733.0
FPT-06-S-100-TB_07304	340101.6	12781364.4	733.4
FPT-07-096-GRD_07304	340172.9	12782776.1	724.8
FPT-07-097-TB_07304	339737.2	12782699.0	733.2
FPT-07-098-BB_07304	339764.3	12782704.0	725.0
FPT-07-099-GRD_07304	339885.8	12782733.1	723.7
FPT-07-100-GRD_07304	340017.2	12782732.8	724.1
FPT-08-A_07304	340507.1	12783057.9	724.0
FPT-08-BB@EWA1_20071107	340510.8	12783059.3	721.4
FPT-08-BB@EWA2_20071107	340181.4	12782984.9	721.0
FPT-08-BB@EWA3_20071107	340147.1	12782977.6	722.0
FPT-08-BB@EWA4_20071107	340099.6	12782967.4	721.6
FPT-08-GRD1_20071107	340414.9	12783037.4	723.3
FPT-08-GRD2_20071107	340306.9	12783012.8	723.3
FPT-08-GRD3_20071107	340241.0	12782997.8	724.2
FPT-08-TB@EWA1_20071107	340510.1	12783058.9	723.6
FPT-08-TB@EWA2_20071107	340183.5	12782985.8	724.4
FPT-08-TB@EWA3_20071107	340146.2	12782976.7	724.1
FPT-08-TB@EWA4_20071107	340100.8	12782967.8	724.6
FPT-09-A_07304	340483.0	12783291.3	723.9
FPT-09-BB@EWA1_20071107	340368.7	12783238.3	722.1
FPT-09-BB@EWA2_20071107	340117.2	12783123.9	721.9
FPT-09-BB@EWA3_20071107	340077.3	12783105.2	722.5
FPT-09-BB@EWA4_20071107	340053.2	12783094.6	721.2
FPT-09-BB_20071107	340314.9	12783213.5	723.6
FPT-09-GRD_20071107	340171.0	12783148.6	725.4
FPT-09-TB@EWA1_20071107	340367.1	12783237.6	724.8
FPT-09-TB@EWA2_20071107	340120.5	12783124.1	725.4
FPT-09-TB@EWA3_20071107	340076.6	12783104.6	724.4
FPT-09-TB@EWA4_20071107	340057.5	12783095.7	724.8
FPT-09-TB_20071107	340242.5	12783180.8	723.7
FPT-10-A_07304	340238.2	12783557.8	724.7
FPT-10-BB@EWA1_20071107	340244.2	12783559.7	722.0
FPT-10-BB@EWA2_20071107	339908.6	12783414.6	722.6
FPT-10-BB1_20071107	340189.5	12783537.0	724.0

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Upland Soil Location (Cont'd.)			
FPT-10-BB2_20071107	340079.3	12783489.2	723.5
FPT-10-GRD1_20071107	340056.1	12783479.7	724.1
FPT-10-GRD2_20071107	339973.9	12783443.2	724.9
FPT-10-TB@EWA1_20071107	340242.9	12783558.9	724.3
FPT-10-TB@EWA2_20071107	339910.2	12783415.9	725.7
FPT-10-TB1_20071107	340183.5	12783534.7	724.7
FPT-11-B_07310	340786.8	12782824.6	723.2
FPT-11-BB@EWA_20071107	340669.8	12782862.3	721.9
FPT-11-BB_20071107	340975.3	12782757.5	723.8
FPT-11-GRD1_20071107	340713.8	12782848.9	723.3
FPT-11-GRD2_20071107	340867.1	12782797.6	724.0
FPT-11-GRD3_20071107	340938.0	12782771.4	723.8
FPT-11-TB@EWA_20071107	340671.7	12782861.9	724.3
FPT-11-TB_20071107	341101.6	12782722.7	727.0
FPT-12-BB@EWA_20071107	340631.0	12783103.0	722.5
FPT-12-BB1_20071107	340702.7	12783126.5	723.3
FPT-12-BB2_20071107	340878.1	12783188.4	723.0
FPT-12-GRD_20071107	340762.7	12783146.8	723.4
FPT-12-TB@EWA_20071107	340632.1	12783103.5	724.4
FPT-12-TB1_20071107	340690.9	12783122.6	724.4
FPT-12-TB2_20071107	340714.1	12783130.1	724.0
FPT-12-TB3_20071107	340909.6	12783199.5	728.0
FPT-13-BB1_20071107	340736.7	12783414.6	722.8
FPT-13-BB2_20071107	340830.2	12783461.4	723.6
FPT-13-GRD1_20071107	340701.0	12783396.2	724.0
FPT-13-GRD2_20071107	340788.1	12783439.3	723.6
FPT-13-TB1_20071107	340722.3	12783408.5	723.7
FPT-13-TB2_20071107	340872.6	12783478.7	727.6
FPT-14-B_07310	340663.5	12783787.0	723.3
FPT-14-BB_20071107	340798.1	12783694.7	724.3
FPT-14-GRD1_20071107	340565.6	12783855.0	724.1
FPT-14-GRD2_20071107	340628.8	12783810.8	723.9
FPT-14-GRD3_20071107	340730.2	12783741.5	723.0
FPT-14-TB_20071107	340828.4	12783672.4	728.7
FPT-15-BB1_20071107	340471.5	12784102.9	724.0
FPT-15-BB2_20071107	340517.7	12784473.6	724.1
FPT-15-GRD1_20071107	340493.0	12784228.4	724.0
FPT-15-GRD2_20071107	340511.0	12784338.0	723.8
FPT-15-TB1_20071107	340466.7	12784076.6	726.0
FPT-15-TB2_20071107	340299.2	12784064.1	725.3
FPT-16-B_07310	340273.5	12784015.0	724.4
FPT-16-BB_20071107	340318.1	12783982.4	724.6

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Upland Soil Location (Cont'd.)			
FPT-16-GRD1_20071107	340169.3	12784065.6	724.3
FPT-16-GRD2_20071107	340252.0	12784014.3	724.4
FPT-16-GRD3_20071107	340299.7	12783986.6	724.2
FPT-16-GRD4_20071107	340361.0	12783970.4	726.1
FPT-16-TB_20071107	340329.8	12783976.4	726.0
FPT-17-A_07304	339759.8	12784128.2	724.3
FPT-17-BB@EWA_20071107	339850.1	12783918.8	722.4
FPT-17-GRD_20071107	339802.3	12784026.4	725.1
FPT-17-GRD_20071107	339702.9	12784264.8	724.4
FPT-17-GRD_20071107	339643.5	12784404.9	725.4
FPT-17-TB@EWA_20071107	339848.9	12783921.6	724.9
FPT-18-B_07310	339539.3	12784157.6	724.5
FPT-18-BB@EWA_20071106	339448.5	12784102.9	722.9
FPT-18-GRD??_20071106	339592.5	12784203.2	725.5
FPT-18-GRD_20071106	339471.0	12784118.0	726.0
FPT-18-TB@EWA_20071106	339449.2	12784103.5	723.9
Left Diversion Structure			
BB@LEVEE_20071113	341878.4	12781057.5	723.4
BB@LEVEE_20071113	341894.7	12781089.7	722.7
BB_20071113	342014.6	12780955.0	722.2
BB_20071113	342000.4	12780961.8	722.4
BB_20071113	341990.7	12780975.9	721.9
BB_20071113	341981.0	12780986.1	722.5
BB-EWA-CREST-TOP_20071113	341901.8	12781035.4	721.4
BB-EWA-TSED_20071113	341982.7	12780990.0	719.7
BB-EWA-TSED_20071113	341973.2	12780995.4	719.9
BB-EWA-TSED_20071113	341974.0	12780992.7	720.4
BB-EWA-TSED_20071113	341969.9	12780988.2	720.4
BB-EWA-TSED_20071113	341969.3	12780987.5	721.9
BB-EWA-TSED_20071113	341969.4	12780986.5	722.0
BB-EWA-TSED_20071113	341965.1	12780981.9	721.9
BB-EWA-TSED_20071113	341960.4	12780981.0	721.5
BB-EWA-TSED_20071113	341960.6	12780975.7	720.5
BB-EWA-TSED_20071113	341961.4	12780972.3	720.2
BB-EWA-TSED_20071113	341971.7	12780960.8	720.4
BB-EWA-TSED_20071113	341997.3	12780941.6	721.3
BB-EWA-TSED_20071113	341994.6	12780994.1	719.9
BB-EWA-TSED_20071113	341848.8	12781045.8	721.2
BB-EWA-TSED_20071113	341876.7	12781018.7	720.9
BB-EWA-TSED_20071113	341884.4	12781018.2	721.2
BB-EWA-TSED_20071113	341895.0	12781023.2	721.7
BB-EWA-TSED_20071113	341917.3	12781049.0	719.8

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Left Diversion Structure (Cont'd.)			
BB-EWA-TSED_20071113	341916.2	12781060.6	719.7
BB-EWA-TSED_20071113	341921.3	12781077.8	719.8
CONC-TOP@LEVEE_20071113	341895.9	12781050.0	725.1
CONC-TOP@LEVEE_20071113	341902.2	12781058.6	726.2
FOOTING-CONC-TOP_20071113	341982.2	12780991.8	720.7
FOOTING-CONC-TOP_20071113	341978.2	12780996.9	720.9
FOOTING-CONC-TOP_20071113	341975.2	12780996.6	720.9
FOOTING-CONC-TOP_20071113	341974.7	12780993.5	721.2
GRD_20071113	341998.0	12780989.4	722.7
GRD_20071113	342019.3	12780965.1	722.9
GRD_20071113	341900.9	12781106.8	722.4
HDW-REMS-BOT_20071113	341971.5	12780983.5	724.3
HDW-REMS-BOT_20071113	341970.0	12780984.8	723.8
HDW-REMS-BOT_20071113	341970.2	12780985.3	723.8
HDW-REMS-BOT_20071113	341969.7	12780986.2	723.5
HDW-REMS-BOT_20071113	341969.4	12780987.0	721.9
HDW-REMS-BOT_20071113	341976.0	12780994.9	721.0
HDW-REMS-BOT_20071113	341975.1	12780986.8	723.2
HDW-REMS-BOT-FTG-TOP_20071113	341979.6	12780990.8	721.0
HDW-REMS-TOP_20071113	341971.6	12780984.0	726.5
HDW-REMS-TOP_20071113	341970.4	12780985.0	726.5
HDW-REMS-TOP_20071113	341970.9	12780985.9	726.5
HDW-REMS-TOP_20071113	341969.5	12780987.4	726.4
HDW-REMS-TOP_20071113	341976.0	12780994.4	726.3
HDW-REMS-TOP_20071113	341979.3	12780990.8	726.3
SED-CNR_20071113	341937.7	12780986.5	721.8
SED-CNR_20071113	341950.8	12780983.1	721.8
SED-CNR_20071113	341966.3	12781006.2	719.8
SED-CNR_20071113	341961.8	12781017.4	719.5
SED-CNR_20071113	341960.1	12781025.2	719.7
SED-CNR_20071113	341945.4	12781021.6	719.5
SLUICE-BOT@BANK-EDGE_20071113	341916.2	12781046.4	719.1
SLUICE-BOT_20071113	341934.4	12781010.8	721.3
SLUICE-BOT_20071113	341964.6	12780991.7	721.3
SLUICE-BOT_20071113	341936.3	12781018.8	718.7
SLUICE-BOT_20071113	341935.6	12781024.2	718.2
SLUICE-BOT_20071113	341931.2	12781028.4	719.2
SLUICE-BOT_20071113	341930.0	12781035.7	717.9
SLUICE-BOT_20071113	341921.8	12781040.1	717.6
SLUICE-BOT-SED-CNR_20071113	341941.5	12781004.6	721.6
SLUICE-BOT-SED-CNR_20071113	341960.3	12780990.6	721.4
SLUICE-BOT-SED-CNR_20071113	341967.3	12780998.3	720.2

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Left Diversion Structure (Cont'd.)			
SLUICE-BOT-SED-CNR_20071113	341940.1	12781018.7	719.2
SLUICE-TOP_20071113	341952.9	12781011.7	721.6
SLUICE-TOP_20071113	341935.5	12781012.0	722.5
SLUICE-TOP_20071113	341933.4	12781011.5	721.8
SLUICE-TOP_20071113	341935.5	12781021.9	720.5
SLUICE-TOP_20071113	341931.1	12781027.6	720.1
SLUICE-TOP_20071113	341928.9	12781035.4	719.3
SLUICE-TOP_20071113	341918.4	12781044.2	719.0
SLUICE-TOP_20071113	341907.2	12781021.2	719.5
SLUICE-TOP_20071113	341914.5	12781012.5	720.3
SLUICE-TOP_20071113	341925.1	12781006.1	720.4
SLUICE-TOP-CREST-TOP_20071113	341964.6	12780992.1	722.6
SLUICE-TOP-CREST-TOP_20071113	341938.5	12781015.1	722.6
SLUICE-TOP-CREST-TOP_20071113	341949.7	12781005.2	722.7
SLUICE-TOP-CREST-TOP_20071113	341932.8	12781014.7	721.4
SLUICE-TOP-CREST-TOP_20071113	341929.3	12781016.2	721.1
SLUICE-TOP-CREST-TOP_20071113	341921.6	12781025.8	720.7
SLUICE-TOP-EWA_20071113	341915.4	12781044.2	720.3
SLUICE-TOP-EWA_20071113	341899.2	12781030.6	721.4
SLUICE-TOP-SED-CNR_20071113	341958.7	12780991.4	722.6
SLUICE-TOP-SED-CNR_20071113	341967.0	12780998.3	721.6
SLUICE-TOP-SED-CNR_20071113	341942.8	12781019.6	721.6
SLUICE-TOP-SED-CNR_20071113	341942.6	12781005.9	722.6
TB@LEVEE_20071113	341889.9	12781064.0	726.0
TB@LEVEE_20071113	341893.3	12781069.5	726.0
TB_20071113	342000.3	12780941.9	724.9
TB_20071113	341985.8	12780957.0	725.3
TB_20071113	341978.4	12780978.1	723.8
TB_20071113	341982.7	12780975.9	725.0
TB_20071113	341990.3	12780965.8	724.7
TB_20071113	342001.3	12780954.1	725.0
TB_20071113	342011.2	12780945.8	725.0
TB-CNR_20071113	341968.0	12780976.3	724.1
TB-CNR_20071113	341969.8	12780985.9	723.8
TB-EWA_20071113	341995.1	12780993.4	721.9
TB-EWA_20071113	341917.3	12781083.8	723.1
TB-EWA_20071113	341913.2	12781056.5	721.9
TB-EWA_20071113	341913.5	12781049.1	722.1
TB-EWA_20071113	341905.6	12781043.7	723.6
TB-EWA_20071113	341892.6	12781024.7	723.1
TB-EWA_20071113	341880.3	12781021.4	723.2
TB-EWA_20071113	341859.6	12781036.1	722.9

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Left Diversion Structure (Cont'd.)			
TB-EWA_20071113	341848.9	12781052.0	723.2
TSED_20071113	341892.5	12781017.9	720.6
TSED_20071113	341896.9	12781004.0	719.1
TSED_20071113	341907.1	12780992.0	720.5
TSED_20071113	341924.9	12780980.5	720.8
TSED_20071113	341942.8	12780975.3	721.1
TSED_20071113	341949.5	12780956.7	720.6
TSED_20071113	341986.8	12780917.2	718.8
WATERELEV_20071113	341953.5	12780978.8	722.1
WATERELEV_20071113	341982.6	12780992.6	720.1
Right Diversion Structure			
BB_20071113	341716.1	12781737.0	723.3
BB-EWA-TSED_20071113	341676.5	12781744.8	721.9
BB-EWA-TSED_20071113	341663.4	12781752.7	722.2
BB-EWA-TSED_20071113	341633.8	12781779.9	722.1
BB-EWA-TSED_20071113	341650.3	12781800.3	719.8
BB-EWA-TSED_20071113	341650.7	12781796.7	719.8
BB-EWA-TSED_20071113	341672.4	12781780.7	719.7
BB-EWA-TSED_20071113	341688.4	12781782.0	719.7
BB-EWA-TSED_20071113	341705.5	12781798.6	719.6
BB-EWA-TSED_20071113	341518.5	12781902.1	722.1
BB-EWA-TSED_20071113	341524.7	12781899.8	722.4
GRD_20071113	341710.5	12781768.7	723.9
GRD_20071113	341655.2	12781777.1	725.2
HDW-BOT-CNR-BB-EWA-CONC_20071113	341527.6	12781887.1	718.7
HDW-BOT-CNR-BB-EWA-CONC_20071113	341536.6	12781894.6	721.3
HDW-BOT-CNR-BB-EWA-CONC_20071113	341547.7	12781903.7	718.1
HDW-BOT-CNR-BB-EWA-TSED_20071113	341526.6	12781896.2	721.9
HDW-BOT-CNR-BB-EWA-TSED_20071113	341525.0	12781894.3	721.3
HDW-BOT-CNR-BB-EWA-TSED_20071113	341528.2	12781890.1	720.2
HDW-BOT-CNR-BB-EWA-TSED_20071113	341526.7	12781888.6	719.3
HDW-BOT-CNR-BB-EWA-TSED_20071113	341547.4	12781905.7	720.5
HDW-CNR-BB-EWA_20071113	341645.8	12781799.2	719.8
HDW-CONC-BOT_20071113	341638.6	12781778.4	724.4
HDW-CONC-BOT_20071113	341634.3	12781781.7	723.5
HDW-CONC-BOT_20071113	341645.7	12781799.2	719.9
HDW-CONC-BOT_20071113	341649.6	12781796.3	720.1
HDW-CONC-CNR-TOP_20071113	341638.7	12781778.6	727.3
HDW-CONC-CNR-TOP_20071113	341634.7	12781781.7	727.4
HDW-CONC-CNR-TOP_20071113	341645.8	12781798.9	724.4
HDW-CONC-CNR-TOP_20071113	341649.3	12781796.3	724.4
HDW-CONC-CNR-TOP_20071113	341546.2	12781904.6	726.0

See Notes on Page 8.

Table 3-10 – Plainwell No. 2 Dam - Reconnaissance Survey Data in Formerly Inundated Area

Location ID	Northing	Easting	Elevation
Right Diversion Structure (Cont'd.)			
HDW-CONC-CNR-TOP_20071113	341543.5	12781903.1	726.1
HDW-CONC-CNR-TOP_20071113	341530.7	12781892.3	726.1
HDW-CONC-CNR-TOP_20071113	341527.4	12781896.1	726.1
HDW-CONC-CNR-TOP_20071113	341526.0	12781895.0	726.1
HDW-CONC-CNR-TOP_20071113	341529.5	12781890.8	726.2
HDW-CONC-CNR-TOP_20071113	341528.0	12781889.7	726.2
HDW-CONC-CNR-TOP_20071113	341529.2	12781888.3	726.2
HDW-CONC-CNR-TOP_20071113	341546.7	12781903.8	726.1
HDW-CONC-TB@LEVEE_20071113	341639.8	12781779.4	726.1
HDW-CONC-TB@LEVEE_20071113	341643.5	12781786.9	725.3
HDW-CONC-TOP_20071113	341639.6	12781789.4	726.6
HDW-CONC-TOP_20071113	341642.4	12781793.8	726.6
HDW-CONC-TOP_20071113	341642.6	12781794.0	725.6
HDW-CONC-TOP_20071113	341644.4	12781796.7	725.6
HDW-CONC-TOP_20071113	341644.5	12781796.9	724.4
HDW-CONC-TOP_20071113	341648.1	12781794.4	724.4
HDW-CONC-TOP_20071113	341648.0	12781794.3	725.7
HDW-CONC-TOP_20071113	341646.2	12781791.6	725.7
HDW-CONC-TOP_20071113	341646.2	12781791.5	726.6
HDW-CONC-TOP_20071113	341639.1	12781781.7	727.1
HDW-CONC-TOP_20071113	341639.4	12781779.1	727.2
HDW-CONC-TOP_20071113	341639.5	12781779.2	727.2
HDW-FACE-BB-EWA_20071113	341637.2	12781785.5	721.9
SLUICE-TOP-CREST-TOP_20071113	341638.5	12781790.1	721.6
SLUICE-TOP-CREST-TOP_20071113	341608.9	12781814.2	721.6
TB@LEVEE_20071113	341676.7	12781748.5	725.5
TB@LEVEE_20071113	341667.2	12781763.6	725.5
TB@LEVEE_20071113	341648.7	12781772.3	724.8
TB@LEVEE_20071113	341656.9	12781778.0	724.8
TB@LEVEE_20071113	341670.6	12781765.2	725.5
TB@LEVEE_20071113	341681.8	12781753.0	725.3
TB_20071113	341536.6	12781897.7	726.3
TB_20071113	341524.9	12781911.8	727.1
TB-EWA_20071113	341709.1	12781792.5	723.6
TB-EWA_20071113	341692.1	12781778.7	722.9
TB-EWA_20071113	341676.6	12781774.7	722.6
TB-EWA_20071113	341517.7	12781903.1	723.5
TB-EWA_20071113	341525.7	12781900.9	725.0
TB-EWA_20071113	341528.2	12781895.8	726.0
WWALL-BOT-BB-EWA-TSED_20071113	341543.0	12781918.5	719.9
WWALL-CONC-TOP@HDW_20071113	341546.2	12781904.9	724.2
WWALL-CONC-TOP_20071113	341542.7	12781918.2	724.1

Notes:
Coordinates are based on the North American Datum of 1983, Michigan South Zone, International Foot.
Elevations are based on the National Geodetic Vertical Datum of 1929.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-11 – Top-of-Bank Core Description - River Bank Soil Sampling near Plainwell

Transect	Location ID	Soil Penetrated (ft)	Soil Recovered (ft)	Depth Interval (ft)	Soil Description
KRT11	KRT11-TB-A	2.0	1.15	0 - 1.15	Dark Brown Clayey Silt, Trace Very Fine Sand, Trace Organics (Roots/Vegetation At Surface), Moist
KRT11	KRT11-TB-B	2.0	1.0	0 - 0.40	Dark Brown Silt, Trace Fine Sand, Trace Organics (Vegetation/Roots)
				0.4 - 1.0	Gray Brown Fine to Coarse Sand, Trace Fine Gravel
KRT11	KRT11-TB-B	2.0	1.15	0 - 0.65	Dark Brown Silt, Trace Fine Sand, Trace Organics (Vegetation/Roots)
				0.65 - 1.15	Gray Brown Fine to Coarse Sand, Trace Fine Gravel, Trace Silt, Moist
KRT12	KRT12-TB-A	2.0	1.3	0 - 1.3	Dark Brown Silt, Very Fine Sand, Trace Clay (Increasing With Depth), Trace Organics (Vegetation/Roots), Moist
KRT12	KRT12-TB-A	2.0	1.25	0 - 1.25	Dark Brown Silt, Very Fine Sand, Trace Clay (Increasing With Depth), Trace Organics (Vegetation/Roots), Moist
KRT12	KRT12-TB-B	2.0	1.3	0 - 0.55	Dark Brown Silt, Trace Very Fine Sand, Trace Organics (Roots/Vegetation)
				0.55 - 1.1	Dark Brown Silt, Little/Some Very Fine Sand, Moist
				1.1 - 1.3	Gray Brown Fine Sand, Trace Little Silt, Moist
KRT13	KRT13-TB-B	1.5	0.95	0 - 0.60	Dark Brown Silty Fine Sand, Trace Organics (Roots/Vegetation), Loose, Damp
				0.60 - 0.70	Orange Brown Silty Fine Sand, Damp, Loose
				0.70 - 0.95	Dark Brown Silty Fine Sand, Damp, Loose
KRT14	KRT14-TB-B	2.0	1.4	0 - 0.60	Dark Gray Fine Sand, Trace Silt, Trace Organics (Roots), Damp
				0.60 - 1.4	Orange Brown to Dark Gray Brown Fine Sand, Trace/Little Fine to Medium Gravel, Trace Silt, Loose, Damp/Moist
KRT14	KRT14-TB-A	2.6	2.4	0 - 2.4	Dark Gray Brown Fine Sand, Trace Silt, Trace Organics (Roots/Vegetation), Moderately Loose, Moist
KRT15	KRT15-TB-A	2.0	1.15	0 - 0.70	Dark Gray Brown Silty Fine Sand, Little Slag, Trace Organics (Roots), Damp
				0.70 - 1.15	Dark Gray Brown Silty Fine Sand and Slag, Damp
KRT15	KRT15-TB-B	2.0	1.15	0 - 1.15	Dark Gray Brown Fine Sand, Trace Fine Gravel, Trace Organics (Roots), Damp/Moist
KRT16	KRT16-TB-A	2.0	1.2	0 - 1.2	Gray Brown Fine Sand, Trace Silt, Trace Fine Gravel, Trace Organics (Roots), Damp, Trace Brick/Slag 0.5-1.2
KRT16	KRT16-TB-B	2.0	1.1	0 - 1.1	Dark Gray Brown Fine Sand, Trace Silt, Trace/Little Fine to Medium Gravel, Loose, Damp/Moist

Notes:
ft - feet

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Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
SRI Phase I Data Report

Table 3-12 Top-of-Bank Soil PCB Results

Location ID	Sample ID	Sample Date	Depth Top (in)	Depth Bottom (in)	QC Performed	Aroclor-1016 (mg/kg)	Aroclor-1221 (mg/kg)	Aroclor-1232 (mg/kg)	Aroclor-1242 (mg/kg)	Aroclor-1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Total PCBs (mg/kg)
KRT11-TB-A	K25800	1/8/2007	0	6		ND(0.086 U)	ND(0.086 U)	ND(0.086 U)	0.18	ND(0.086 U)	0.69	0.15	1.0
KRT11-TB-A	K25801	1/8/2007	6	12		ND(0.089 U)	ND(0.089 U)	ND(0.089 U)	ND(0.089 U)	ND(0.089 U)	0.047 J	ND(0.089 U)	0.047 J
KRT11-TB-A	K25802	1/8/2007	12	24		ND(0.082 U)	ND(0.082 U)	ND(0.082 U)	ND(0.082 U)	ND(0.082 U)	ND(0.082 U)	ND(0.082 U)	ND(0.082 U)
KRT11-TB-B	K25803	1/8/2007	0	6		ND(0.070 U)	ND(0.070 U)	ND(0.070 U)	0.32	ND(0.07 U)	0.50	0.11	0.93
KRT11-TB-B	K25804	1/8/2007	0	6	DUP(K25803)	ND(0.074 U)	ND(0.074 U)	ND(0.074 U)	0.26	ND(0.074 U)	0.42	0.096	0.78
KRT11-TB-B	K25805	1/8/2007	6	12	MS/MSD	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	ND(0.060 U)	0.31	0.20	0.091	0.60
KRT11-TB-B	K25806	1/8/2007	12	24		ND(0.055 U)	ND(0.055 U)	ND(0.055 U)	0.078	0.15	0.11	ND(0.055 U)	0.34
KRT12-TB-A	K25807	1/8/2007	0	6		ND(0.94 U)	ND(0.94 U)	ND(0.94 U)	ND(0.94 U)	4.7	3.6	0.86 J	9.2 J
KRT12-TB-A	K25808	1/8/2007	0	6	DUP(K25807)	ND(0.94 U)	ND(0.94 U)	ND(0.94 U)	ND(0.94 U)	3.9	3.0	0.72 J	7.6 J
KRT12-TB-A	K25809	1/8/2007	6	12	MS/MSD	ND(1.9 U)	ND(1.9 U)	ND(1.9 U)	ND(1.9 U)	10	5.6	1.0 J	17 J
KRT12-TB-A	K25810	1/8/2007	12	16		ND(0.28 U)	ND(0.28 U)	ND(0.28 U)	ND(0.28 U)	1.4	1.2	0.35	3.0
KRT12-TB-B	K25811	1/8/2007	0	6		ND(0.25 U)	ND(0.25 U)	ND(0.25 U)	1.3	ND(0.25 U)	1.0	0.24 J	2.5 J
KRT12-TB-B	K25812	1/8/2007	6	12		ND(0.37 U)	ND(0.37 U)	ND(0.37 U)	ND(0.37 U)	1.9	1.5	0.34 J	3.7 J
KRT12-TB-B	K25813	1/8/2007	12	16		ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	0.37	0.26	0.11	0.74
KRT13-TB-B	K25814	1/8/2007	0	6		ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	0.25	0.27	0.074	0.59
KRT13-TB-B	K25815	1/8/2007	6	12		ND(0.63 U)	ND(0.63 U)	ND(0.63 U)	ND(0.63 U)	3.6	2.7	0.51 J	6.8 J
KRT14-TB-A	K25816	1/8/2007	0	6		ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)
KRT14-TB-A	K25817	1/8/2007	6	12		ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)
KRT14-TB-A	K25818	1/8/2007	12	24		ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)	ND(0.056 U)
KRT14-TB-A	K25819	1/8/2007	24	29		ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)
KRT14-TB-B	K25820	1/8/2007	0	6		ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)
KRT14-TB-B	K25821	1/8/2007	6	12		ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)
KRT14-TB-B	K25822	1/8/2007	12	17		ND(0.054 U)	ND(0.054 U)	ND(0.054 U)	ND(0.054 U)	ND(0.054 U)	ND(0.054 U)	ND(0.054 U)	ND(0.054 U)
KRT15-TB-A	K25823	1/8/2007	0	6		ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	ND(0.069 U)	0.071	ND(0.069 U)	0.071
KRT15-TB-A	K25824	1/8/2007	6	12		ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	0.037 J	ND(0.058 U)	0.037 J
KRT15-TB-A	K25825	1/8/2007	12	14		ND(0.18 U)	ND(0.18 U)	ND(0.18 U)	ND(0.18 U)	1.5	0.81	0.15 J	2.5 J
KRT15-TB-B	K25826	1/8/2007	0	6		ND(0.61 U)	ND(0.61 U)	ND(0.61 U)	ND(0.61 U)	2.8	2.0	ND(0.61 U)	4.8
KRT15-TB-B	K25827	1/8/2007	6	12		ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	ND(0.053 U)	0.32	0.18	ND(0.053 U)	0.50
KRT15-TB-B	K25828	1/8/2007	12	14		ND(0.052 U)	ND(0.052 U)	ND(0.052 U)	ND(0.052 U)	0.047 J	0.051 J	ND(0.052 U)	0.098 J
KRT16-TB-A	K25829	1/8/2007	0	6		ND(0.28 U)	ND(0.28 U)	ND(0.28 U)	ND(0.28 U)	ND(0.28 U)	2.9	0.92	3.8
KRT16-TB-A	K25830	1/8/2007	6	12		ND(0.27 U)	ND(0.27 U)	ND(0.27 U)	ND(0.27 U)	ND(0.27 U)	2.5	0.79	3.3
KRT16-TB-A	K25831	1/8/2007	12	15		ND(1.2 U)	ND(1.2 U)	ND(1.2 U)	ND(1.2 U)	ND(1.2 U)	12	3.8	16
KRT16-TB-B	K25832	1/8/2007	0	6		ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	ND(0.058 U)	0.078	ND(0.058 U)	0.078
KRT16-TB-B	K25833	1/8/2007	6	12		ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	0.067	0.13	ND(0.059 U)	0.20
KRT16-TB-B	K25834	1/8/2007	12	13		ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)	ND(0.059 U)

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Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
SRI Phase I Data Report

Table 3-13 Top-of-Bank Soil TOC and Percent Solids Results

Location ID	Sample ID	Sample Date	Depth Top (in)	Depth Bottom (in)	QC Performed	Solids (%)	Total Organic Carbon (mg/kg)
KRT11-TB-A	K25800	1/8/2007	0	6		58	75,600
KRT11-TB-A	K25801	1/8/2007	6	12		56	60,300
KRT11-TB-A	K25802	1/8/2007	12	24		61	46,300
KRT11-TB-B	K25803	1/8/2007	0	6		71	34,400
KRT11-TB-B	K25804	1/8/2007	0	6	DUP(K25803)	67	34,300
KRT11-TB-B	K25805	1/8/2007	6	12	MS/MSD	83	24,800
KRT11-TB-B	K25806	1/8/2007	12	24		91	10,800
KRT12-TB-A	K25807	1/8/2007	0	6		53	94,400
KRT12-TB-A	K25808	1/8/2007	0	6	DUP(K25807)	53	137,000
KRT12-TB-A	K25809	1/8/2007	6	12	MS/MSD	54	106,000
KRT12-TB-A	K25810	1/8/2007	12	16		54	99,300
KRT12-TB-B	K25811	1/8/2007	0	6		61	88,500
KRT12-TB-B	K25812	1/8/2007	6	12		67	58,000
KRT12-TB-B	K25813	1/8/2007	12	16		72	47,700
KRT13-TB-B	K25814	1/8/2007	0	6		87	22,800
KRT13-TB-B	K25815	1/8/2007	6	12		79	33,700
KRT14-TB-A	K25816	1/8/2007	0	6		84	78,900
KRT14-TB-A	K25817	1/8/2007	6	12		90	6,520
KRT14-TB-A	K25818	1/8/2007	12	24		90	3,940
KRT14-TB-A	K25819	1/8/2007	24	29		87	6,140
KRT14-TB-B	K25820	1/8/2007	0	6		85	26,100
KRT14-TB-B	K25821	1/8/2007	6	12		94	6,980
KRT14-TB-B	K25822	1/8/2007	12	17		92	18,000
KRT15-TB-A	K25823	1/8/2007	0	6		73	109,000
KRT15-TB-A	K25824	1/8/2007	6	12		86	119,000
KRT15-TB-A	K25825	1/8/2007	12	14		82	107,000
KRT15-TB-B	K25826	1/8/2007	0	6		82	49,900
KRT15-TB-B	K25827	1/8/2007	6	12		95	4,070
KRT15-TB-B	K25828	1/8/2007	12	14		95	32,800
KRT16-TB-A	K25829	1/8/2007	0	6		89	20,100
KRT16-TB-A	K25830	1/8/2007	6	12		91	50,900
KRT16-TB-A	K25831	1/8/2007	12	15		86	61,200
KRT16-TB-B	K25832	1/8/2007	0	6		86	39,600
KRT16-TB-B	K25833	1/8/2007	6	12		84	23,700
KRT16-TB-B	K25834	1/8/2007	12	13		85	17,800

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Supplemental Remedial Investigations/Feasibility Studies
SRI Phase I Data Report

Table 3-14 Top-of-Bank Soil Particle Size Data

Location ID	Sample ID	Sample Date	Depth Top (in)	Depth Bottom (in)	QC Performed	Gravel (%)	Coarse Sand (%)	Medium Sand (%)	Fine Sand (%)	Silt (%)	Clay (%)	% passing 75000 um	% passing 50000 um	% passing 37500 um
KRT11-TB-A	K25800	1/8/2007	0	6		0.8	0.6	4.4	16.6	55.0	22.7	100	100	100
KRT11-TB-A	K25801	1/8/2007	6	12		0.1	0.5	4.1	31.7	45.5	18.1	100	100	100
KRT11-TB-B	K25803	1/8/2007	0	6		6.5	15.6	25.8	29.4	20.0	2.8	100	100	100
KRT11-TB-B	K25804	1/8/2007	0	6	DUP(K25803)	8.1	22.4	31.9	26.9	6.9	3.8	100	100	100
KRT11-TB-B	K25805	1/8/2007	6	12	MS/MSD	14.1	44.6	30.1	8.6	1.9	0.7	100	100	100
KRT11-TB-B	K25806	1/8/2007	12	24		9.3	38.5	32.1	10.8	8.6	0.8	100	100	100
KRT12-TB-A	K25807	1/8/2007	0	6		2.4	2.4	17.3	19.1	41.3	17.5	100	100	100
KRT12-TB-A	K25808	1/8/2007	0	6	DUP(K25807)	0.7	2.4	26.2	17.0	37.6	16.2	100	100	100
KRT12-TB-A	K25809	1/8/2007	6	12	MS/MSD	1.2	1.8	22.0	18.0	34.2	22.8	100	100	100
KRT12-TB-A	K25810	1/8/2007	12	16		7.4	2.0	12.3	32.2	31.0	15.1	100	100	100
KRT12-TB-B	K25811	1/8/2007	0	6		0.0	0.3	10.6	52.6	28.1	8.4	100	100	100
KRT12-TB-B	K25812	1/8/2007	6	12		0.8	0.2	2.9	62.6	24.5	8.9	100	100	100
KRT12-TB-B	K25813	1/8/2007	12	16		0.0	0.1	3.5	80.8	10.0	5.7	100	100	100
KRT13-TB-B	K25814	1/8/2007	0	6		2.0	1.9	18.1	57.3	16.8	3.9	100	100	100
KRT13-TB-B	K25815	1/8/2007	6	12		8.2	14.9	22.6	29.3	20.5	4.4	100	100	100
KRT14-TB-A	K25816	1/8/2007	0	6		2.3	2.0	14.2	64.9	11.3	5.3	100	100	100
KRT14-TB-A	K25817	1/8/2007	6	12		1.6	1.7	11.3	66.1	11.0	8.4	100	100	100
KRT14-TB-A	K25818	1/8/2007	12	24		1.8	1.1	9.6	65.8	12.1	9.6	100	100	100
KRT14-TB-A	K25819	1/8/2007	24	29		1.7	2.0	8.5	60.5	15.6	11.7	100	100	100
KRT14-TB-B	K25820	1/8/2007	0	6		6.4	4.9	21.5	49.0	13.5	4.7	100	100	100
KRT14-TB-B	K25821	1/8/2007	6	12		16.2	10.4	21.0	39.8	5.9	6.7	100	100	100
KRT14-TB-B	K25822	1/8/2007	12	17		3.1	5.4	19.5	54.2	10.9	6.8	100	100	100
KRT15-TB-A	K25823	1/8/2007	0	6		34.3	13.1	17.1	19.4	12.2	3.9	100	100	100
KRT15-TB-A	K25824	1/8/2007	6	12		38.2	19.7	16.7	14.3	8.4	2.6	100	100	100
KRT15-TB-B	K25826	1/8/2007	0	6		3.6	5.5	28.1	45.1	12.7	5.0	100	100	100
KRT15-TB-B	K25827	1/8/2007	6	12		4.3	8.2	23.6	52.8	5.3	5.7	100	100	100
KRT16-TB-A	K25829	1/8/2007	0	6		7.5	4.2	8.5	64.5	10.9	4.4	100	100	100
KRT16-TB-A	K25830	1/8/2007	6	12		24.9	11.9	13.9	39.4	6.7	3.3	100	100	100
KRT16-TB-B	K25832	1/8/2007	0	6		21.4	22.3	14.0	28.0	12.7	1.6	100	100	100
KRT16-TB-B	K25833	1/8/2007	6	12		25.9	22.7	13.4	28.9	6.4	2.7	100	100	100

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
SRI Phase I Data Report

Table 3-14 Top-of-Bank Soil Particle Size Data

Location ID	Sample ID	Sample Date	Depth Top (in)	Depth Bottom (in)	QC Performed	% passing 25000 um	% passing 19000 um	% passing 9500 um	% passing 4750 um	% passing 2000 um	% passing 850 um	% passing 425 um	% passing 250 um	% passing 180 um
KRT11-TB-A	K25800	1/8/2007	0	6		100	100	100	99.2	98.6	95.6	94.3	93.0	89.8
KRT11-TB-A	K25801	1/8/2007	6	12		100	100	100	99.9	99.4	96.6	95.2	93.3	86.9
KRT11-TB-B	K25803	1/8/2007	0	6		100	100	100	93.5	77.9	66.6	52.1	37.8	29.7
KRT11-TB-B	K25804	1/8/2007	0	6	DUP(K25803)	100	100	100	91.9	69.4	51.9	37.6	24.2	16.2
KRT11-TB-B	K25805	1/8/2007	6	12	MS/MSD	100	100	100	85.9	41.3	20.7	11.2	7.3	4.4
KRT11-TB-B	K25806	1/8/2007	12	24		100	100	100	90.7	52.2	33.3	20.1	15.7	11.8
KRT12-TB-A	K25807	1/8/2007	0	6		100	100	100	97.6	95.2	88.1	77.9	72.6	67.7
KRT12-TB-A	K25808	1/8/2007	0	6	DUP(K25807)	100	100	100	99.3	96.9	82.2	70.8	65.8	61.5
KRT12-TB-A	K25809	1/8/2007	6	12	MS/MSD	100	100	100	98.8	97.0	85.1	75.1	69.6	65.1
KRT12-TB-A	K25810	1/8/2007	12	16		100	100	100	92.6	90.6	86.2	78.3	69.5	60.8
KRT12-TB-B	K25811	1/8/2007	0	6		100	100	100	100	99.7	95.8	89.1	82.5	69.4
KRT12-TB-B	K25812	1/8/2007	6	12		100	100	100	99.2	99.0	98.4	96.1	85.8	63.5
KRT12-TB-B	K25813	1/8/2007	12	16		100	100	100	100	99.9	99.6	96.5	74.5	33.1
KRT13-TB-B	K25814	1/8/2007	0	6		100	100	100	98.0	96.1	92.3	78.0	51.2	33.5
KRT13-TB-B	K25815	1/8/2007	6	12		100	100	100	91.8	76.8	64.8	54.2	45.4	36.8
KRT14-TB-A	K25816	1/8/2007	0	6		100	100	100	97.7	95.7	91.6	81.5	60.5	37.4
KRT14-TB-A	K25817	1/8/2007	6	12		100	100	100	98.4	96.8	94.3	85.5	65.3	41.4
KRT14-TB-A	K25818	1/8/2007	12	24		100	100	100	98.2	97.1	95.3	87.5	69.1	46.2
KRT14-TB-A	K25819	1/8/2007	24	29		100	100	100	98.3	96.3	94.3	87.8	73.3	52.2
KRT14-TB-B	K25820	1/8/2007	0	6		100	100	95.9	93.6	88.7	82.3	67.2	48.4	31.3
KRT14-TB-B	K25821	1/8/2007	6	12		100	100	96.8	83.8	73.4	66.0	52.5	36.1	21.9
KRT14-TB-B	K25822	1/8/2007	12	17		100	100	100	96.9	91.5	85.9	72.0	52.2	34.6
KRT15-TB-A	K25823	1/8/2007	0	6		100	100	80.5	65.7	52.7	44.1	35.6	29.0	22.6
KRT15-TB-A	K25824	1/8/2007	6	12		100	100	92.8	61.8	42.1	32.9	25.4	20.9	16.7
KRT15-TB-B	K25826	1/8/2007	0	6		100	100	100	96.4	90.8	81.6	62.8	41.2	25.7
KRT15-TB-B	K25827	1/8/2007	6	12		100	100	100	95.7	87.5	79.4	63.9	42.5	22.8
KRT16-TB-A	K25829	1/8/2007	0	6		100	100	97.3	92.5	88.3	84.6	79.8	64.2	37.6
KRT16-TB-A	K25830	1/8/2007	6	12		100	100	90.3	75.1	63.3	56.4	49.4	38.7	23.7
KRT16-TB-B	K25832	1/8/2007	0	6		100	100	96.4	78.6	56.3	49.0	42.3	28.4	20.5
KRT16-TB-B	K25833	1/8/2007	6	12		100	100	97.0	74.1	51.4	44.2	38.0	23.5	15.2

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Supplemental Remedial Investigations/Feasibility Studies
SRI Phase I Data Report

Table 3-14 Top-of-Bank Soil Particle Size Data

Location ID	Sample ID	Sample Date	Depth Top (in)	Depth Bottom (in)	QC Performed	% passing 150 um	% passing 75 um	% passing 38 um	% passing 24 um	% passing 13.8 um	% passing 9.7 um	% passing 7.0 um	% passing 3.5 um	% passing 1.4 um
KRT11-TB-A	K25800	1/8/2007	0	6		88.0	77.6	47.4	43.3	35.0	26.8	22.7	12.4	6.2
KRT11-TB-A	K25801	1/8/2007	6	12		83.0	63.5	37.4	33.6	27.1	21.9	18.1	9.0	3.9
KRT11-TB-B	K25803	1/8/2007	0	6		27.8	22.8	8.3	8.3	6.9	4.1	2.8	0.0	0.0
KRT11-TB-B	K25804	1/8/2007	0	6	DUP(K25803)	14.5	10.6	7.5	7.5	6.3	5.0	3.8	1.3	1.3
KRT11-TB-B	K25805	1/8/2007	6	12	MS/MSD	3.9	2.6	2.2	1.4	1.4	0.7	0.7	-0.7	-0.7
KRT11-TB-B	K25806	1/8/2007	12	24		10.9	9.4	1.9	1.9	0.9	0.9	0.8	-0.2	-0.2
KRT12-TB-A	K25807	1/8/2007	0	6		66.4	58.8	39.3	30.6	24.0	19.7	17.5	8.4	6.2
KRT12-TB-A	K25808	1/8/2007	0	6	DUP(K25807)	60.3	53.8	37.8	29.7	27.0	18.9	16.2	7.7	5.0
KRT12-TB-A	K25809	1/8/2007	6	12	MS/MSD	63.8	57.0	42.6	36.7	30.7	26.8	22.8	14.7	6.9
KRT12-TB-A	K25810	1/8/2007	12	16		57.8	46.1	34.3	28.8	23.4	19.2	15.1	9.4	5.3
KRT12-TB-B	K25811	1/8/2007	0	6		62.8	36.5	27.3	21.0	16.8	12.6	8.4	6.0	3.9
KRT12-TB-B	K25812	1/8/2007	6	12		54.7	33.5	22.3	17.9	14.5	12.3	8.9	6.5	4.1
KRT12-TB-B	K25813	1/8/2007	12	16		25.7	15.6	11.3	9.9	8.5	7.1	5.7	4.0	4.0
KRT13-TB-B	K25814	1/8/2007	0	6		29.5	20.7	12.6	9.7	7.8	4.9	3.9	1.8	1.8
KRT13-TB-B	K25815	1/8/2007	6	12		34.2	24.9	13.2	11.8	8.8	5.9	4.4	1.2	1.2
KRT14-TB-A	K25816	1/8/2007	0	6		29.9	16.6	12.2	10.1	8.0	6.0	5.3	3.3	2.6
KRT14-TB-A	K25817	1/8/2007	6	12		33.5	19.4	15.1	13.8	11.0	10.4	8.4	7.1	6.3
KRT14-TB-A	K25818	1/8/2007	12	24		37.9	21.7	16.7	15.0	12.3	10.7	9.6	7.5	6.4
KRT14-TB-A	K25819	1/8/2007	24	29		44.0	27.3	20.4	18.4	15.7	13.7	11.7	8.3	6.3
KRT14-TB-B	K25820	1/8/2007	0	6		26.4	18.2	11.5	9.8	7.3	5.6	4.7	2.9	2.1
KRT14-TB-B	K25821	1/8/2007	6	12		18.3	12.6	11.1	10.4	9.6	8.2	6.7	5.4	3.9
KRT14-TB-B	K25822	1/8/2007	12	17		28.7	17.8	12.3	12.3	10.1	8.0	6.8	5.9	4.8
KRT15-TB-A	K25823	1/8/2007	0	6		21.1	16.1	8.9	8.9	5.5	5.5	3.9	2.3	2.3
KRT15-TB-A	K25824	1/8/2007	6	12		15.8	11.1	6.3	6.3	4.5	2.6	2.6	0.8	0.8
KRT15-TB-B	K25826	1/8/2007	0	6		22.5	17.7	12.9	9.5	8.4	6.1	5.0	1.7	1.6
KRT15-TB-B	K25827	1/8/2007	6	12		17.9	11.1	9.4	8.8	7.6	7.0	5.7	4.6	3.4
KRT16-TB-A	K25829	1/8/2007	0	6		28.7	15.3	11.4	9.4	7.4	5.4	4.4	2.5	1.4
KRT16-TB-A	K25830	1/8/2007	6	12		18.9	10.0	7.8	6.3	4.8	4.1	3.3	1.9	1.1
KRT16-TB-B	K25832	1/8/2007	0	6		18.2	14.4	6.1	5.2	3.4	2.5	1.6	1.6	1.6
KRT16-TB-B	K25833	1/8/2007	6	12		12.9	9.0	6.8	5.4	4.0	3.3	2.7	1.3	1.3

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-15 – Sediment Transect Probing Data - Crown Vantage Landfill

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Description
CVT-01	CVT-01-1	0.20	2.1	Silt over Fine to Coarse Sand
CVT-01	CVT-01-2	1.4	4.6	Silt over Fine to Coarse Sand, Trace Rock
CVT-01	CVT-01-3	2.2	1.4	Heavy Vegetation over Silt over Fine to Coarse Sand
CVT-01	CVT-01-4	2.3	0.40	Heavy Vegetation over Fine to Coarse Sand
CVT-01	CVT-01-5	0	3.2	Organic (Leaves) over Very Fine Sand over Fine to Medium Sand
CVT-02	CVT-02-1	0.80	4.2	Silt over Fine to Coarse Sand
CVT-02	CVT-02-2	1.1	2.4	Silt over Coarse Sand And Gravel
CVT-02	CVT-02-3	2.3	1.7	Heavy Vegetation over Fine to Medium Sand
CVT-02	CVT-02-4	1.9	1.4	Heavy Vegetation over Fine to Coarse Sand With Gravel
CVT-02	CVT-02-5	0	3.3	Organics (Leaves), Fine to Medium Sand over Coarse Sand
CVT-03	CVT-03-1	0	2.5	Organic (Leaves) over Silt over Fine Sand over Log (Wood)
CVT-03	CVT-03-2	1.8	0.55	Heavy Vegetation, Silt over Fine to Medium Sand
CVT-03	CVT-03-3	2.0	1.6	Heavy Vegetation, Fine Sand over Fine to Medium Sand
CVT-03	CVT-03-4	1.6	1.5	Heavy Vegetation, Fine to Medium Sand over Fine to Medium Sand And Gravel
CVT-03	CVT-03-5	0	2.5	Organic (Leaves) over Fine to Medium Sand over Rock
CVT-04	CVT-04-1	0.70	1.4	Vegetation And Leaves over Silt over Fine to Coarse Sand
CVT-04	CVT-04-2	2.4	1.2	Heavy Vegetation over Fine to Medium Sand, Trace Gravel
CVT-04	CVT-04-3	2.8	0.30	Heavy Vegetation over Trace Silt over Fine to Medium Sand Between Gravel
CVT-04	CVT-04-4	1.3	1.8	Heavy Vegetation over Silt over Tight Sands
CVT-04	CVT-04-5	0	3.5	Silt over Fine Sand over Fine Sand And Gravel
CVT-05	CVT-05-1	0.55	2.1	Heavy Vegetation over Silt over Wood
CVT-05	CVT-05-2	1.0	3.0	Heavy Vegetation over Silt over Fine to Medium Sand
CVT-05	CVT-05-3	2.1	1.7	Little Vegetation over Silt over Gravel
CVT-05	CVT-05-4	1.9	1.0	Little Vegetation over Silt over Gravel
CVT-05	CVT-05-5	0	2.1	Silt over Fine to Medium Sand, Trace Gravel
CVT-06	CVT-06-1	0	4.0	Leaves over Silt over Fine Sand over Rock
CVT-06	CVT-06-2	1.3	2.9	Vegetation/Leaves over Silt over Fine Sand over Fine to Medium Sand, Trace Gravel
CVT-06	CVT-06-3	1.7	2.8	Vegetation/Leaves over Silt over Fine to Medium Sand over Gravel
CVT-06	CVT-06-4	1.6	1.5	Leaves over Silt over Gravel
CVT-06	CVT-06-5	0	2.8	Silt over Fine to Medium Sand
CVT-07	CVT-07-1	0	4.4	Leaves over Silt And Fine Sand over Fine to Medium Sand With Gravel/Rock

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-15 – Sediment Transect Probing Data - Crown Vantage Landfill

Transect	Location ID	Water Depth (ft)	Probing Depth (ft)	Sediment Description
CVT-07	CVT-07-2	1.0	3.5	Leaves over Silt And Fine Sand over Fine to Medium Sand With Gravel
CVT-07	CVT-07-3	1.0	3.1	Heavy Vegetation over Silt With Fine Sand over Fine Sand With Gravel
CVT-07	CVT-07-4	0.50	3.5	Silt over Fine to Medium Sand With Gravel
CVT-07	CVT-07-5	0	2.9	Silt over Fine to Medium Sand
CVT-08	CVT-08-1	0	2.5	Leaves over Silt With Fine Sand over Fine to Medium Sand
CVT-08	CVT-08-2	1.2	2.8	Moderate Vegetation over Silt, Trace Fine Sand over Fine to Medium Sand With Trace Gravel
CVT-08	CVT-08-3	1.1	2.8	Moderate Vegetation over Silt With Fine Sand over Fine Sand, Trace Medium Sand
CVT-08	CVT-08-4	1.2	2.9	Moderate Vegetation over Silt, Trace Fine Sand over Fine to Medium Sand
CVT-08	CVT-08-5	0	4.8	Silt With Fine Sand over Tight Sand Bottom

Notes:
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-16 – Summary of Sediment Transect Probing Data - Crown Vantage Landfill

Transect	Water Depth		Probed Sediment Depth	
	Range (ft)	Mean (ft)	Range (ft)	Mean (ft)
CVT-01	0 - 2.3	1.2	0.40 - 4.6	2.3
CVT-02	0 - 2.3	1.2	1.4 - 4.2	2.6
CVT-03	0 - 2.0	1.1	0.55 - 2.5	1.7
CVT-04	0 - 2.8	1.4	0.30 - 3.5	1.6
CVT-05	0 - 2.1	1.1	1.0 - 3.0	2.0
CVT-06	0 - 1.7	0.92	1.5 - 4.0	2.8
CVT-07	0 - 1.0	0.50	2.9 - 4.4	3.5
CVT-08	0 - 1.2	0.70	2.5 - 4.8	3.2

Notes:
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT1	PCT1-1	0.40	0	Coarse	Concrete Apron, No Sediment
PCT1	PCT1-2	0.50	0	Coarse	Concrete Apron, No Sediment
PCT1	PCT1-3	0.40	0	Coarse	Concrete Apron, No Sediment
PCT1	PCT1-4	0	0	Coarse	Concrete Apron, No Sediment
PCT1	PCT1-5	0.50	0	Coarse	Concrete Apron, No Sediment
PCT1	PCT1-6	0.40	0	Coarse	Concrete Apron, No Sediment
PCT1	PCT1-7	0.30	0	Coarse	Concrete Apron, No Sediment
PCT2	--	--	--	--	No Access - Restricted Area
PCT3	PCT3-1	0.95	0.90	Coarse	Fine Sand to Coarse Sand, Trace Fine Gravel to Coarse Gravel
PCT3	PCT3-2	0.95	0.40	Coarse	Fine Sand to Coarse Sand With Fine Gravel to Coarse Gravel
PCT3	PCT3-3	1.4	2.2	Coarse	Fine Sand to Coarse Sand Some Silt, Fine Gravel to Coarse Gravel
PCT3	PCT3-4	1.5	0.50	Coarse	Fine Sand to Medium Sand over Rock
PCT3	PCT3-5	1.4	0.20	Coarse	Fine Sand to Medium Sand over Rock
PCT3	PCT3-6	0.80	0.20	Coarse	Fine Sand to Coarse Sand, Medium Gravel to Coarse Gravel
PCT4	PCT4-1	1.1	0.70	Coarse	Fine Sand to Coarse Sand, Fine Gravel to Coarse Gravel
PCT4	PCT4-2	1.3	0	Coarse	Gravel over Rock
PCT4	PCT4-3	1.1	0.30	Coarse	Fine Sand to Coarse Sand over Rock
PCT4	PCT4-4	1.2	0.20	Coarse	Fine Sand to Coarse Sand over Rock
PCT4	PCT4-5	0.80	1.0	Coarse	Fine Gravel to Coarse Gravel
PCT4	PCT4-6	0.50	0.10	Coarse	Fine Sand to Coarse Sand, Fine Gravel to Coarse Gravel
PCT4	PCT4-7	0.75	0	Coarse	Cobble over Footer
PCT5	PCT5-1	1.1	0	Coarse	Cobble/Footer
PCT5	PCT5-2	0.90	0.50	Coarse	Fine Sand to Medium Sand over Rock
PCT5	PCT5-3	1.1	0.30	Coarse	Fine Sand to Coarse Sand, Fine Gravel to Coarse Gravel over Rock
PCT5	PCT5-4	0.65	1.0	Coarse	Fine Sand to Coarse Sand, Fine Gravel to Coarse Gravel over Rock
PCT5	PCT5-5	0.70	1.1	Coarse	Fine Sand to Coarse Sand, Fine Gravel to Coarse Gravel Between Cobble
PCT5	PCT5-6	0.35	0.50	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT5	PCT5-7	0	0	Coarse	Concrete Footer
PCT6	PCT6-1	0	0.20	Coarse	Exposed Sediment - Fine Sand over Rock Cobble
PCT6	PCT6-2	0.20	0	Coarse	Rock/Cobble/Gravel
PCT6	PCT6-3	1.2	0.20	Coarse	Fine Sand to Medium Sand Between Brick
PCT6	PCT6-4	1.3	0.30	Coarse	Fine Sand to Coarse Sand over Rock, Cobble
PCT6	PCT6-5	0.70	0.30	Coarse	Fine Sand to Medium Sand, over Rock
PCT6	PCT6-6	0.70	1.2	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT6	PCT6-7	0.10	0	Coarse	Gravel, Brick, Debris
PCT6	PCT6-8	0	0.20	Coarse	Exposed Sediment - Fine Sand over Debris
PCT6	PCT6-9	0	0.20	Coarse	Exposed Sediment - Fine Sand over Debris

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT7	PCT7-1	0.20	1.5	Coarse	Fine Sand to Coarse Sand, Fine Gravel to Coarse Gravel, Between Cobble
PCT7	PCT7-2	0.90	0	Coarse	Gravel, Cobble
PCT7	PCT7-3	1.6	0.10	Coarse	Fine Sand to Coarse Sand Between Cobble, Boulders
PCT7	PCT7-4	1.0	0.10	Coarse	Fine Sand to Coarse Sand Between Cobble, Rock
PCT7	PCT7-5	0.60	0.10	Coarse	Fine Sand to Coarse Sand Between Cobble, Rock/Cobble
PCT7	PCT7-6	0	0	Coarse	Concrete Extension Off Wall
PCT8	PCT8-1	0	0.30	Coarse	Fine Sand to Coarse Sand over Rock, Little Fine Gravel to Coarse Gravel
PCT8	PCT8-2	0.85	0.10	Coarse	Fine Sand to Coarse Sand Between Rock, Cobble
PCT8	PCT8-3	1.4	0.40	Coarse	Fine Sand to Coarse Sand Trace Fine Gravel to Medium Gravel
PCT8	PCT8-4	1.3	0.40	Coarse	Medium Sand to Coarse Sand Trace Fine Gravel to Medium Gravel
PCT8	PCT8-5	1.3	0.30	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT8	PCT8-6	0.70	0.20	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT8	PCT8-7	0	3.0	Coarse	Fine Sand to Medium Sand, Little Grey Silt/Clay, Trace Medium Gravel
PCT8	PCT8-8	0	4.0	Coarse	Exposed Vegetated Fine Sand, Silts, Medium Sand to Coarse Sand, Fine Gravel, Concrete, Debris
PCT9	PCT9-1	0.40	1.0	Coarse	Fine Sand to Coarse Sand, Little Fine Gravel to Coarse Gravel
PCT9	PCT9-2	0.80	0.10	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT9	PCT9-3	1.2	0.10	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT9	PCT9-4	1.1	0.50	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT9	PCT9-5	1.2	0.10	Coarse	Fine Sand to Coarse Sand Between Cobble
PCT9	PCT9-6	1.2	1.7	Coarse	Fine Sand to Coarse Sand, Little Fine Gravel to Coarse Gravel
PCT10	PCT10-1	0.40	1.4	Coarse	Fine Sand to Coarse Sand over Tree Roots
PCT10	PCT10-2	1.9	0.50	Coarse	Fine Sand to Coarse Sand, Little Fine Gravel to Coarse Gravel
PCT10	PCT10-3	1.9	0.30	Coarse	Fine Sand to Coarse Sand over Rock
PCT10	PCT10-4	1.8	0.20	Coarse	Fine Sand to Coarse Sand, Fine Gravel over Rock
PCT10	PCT10-5	1.7	1.0	Coarse	Fine Sand to Coarse Sand, Fine Gravel over Rock
PCT10	PCT10-6	1.2	1.4	Coarse	Fine Sand to Coarse Sand, Trace Fine Gravel to Coarse Gravel over Rock
PCT11	PCT11-1	0.30	2.0	Coarse	Fine Sand
PCT11	PCT11-2	1.2	2.5	Coarse	Fine Sand to Medium Sand, Trace Fine Gravel
PCT11	PCT11-3	1.1	0	Coarse	Rock/Cobble
PCT11	PCT11-4	1.3	0.10	Coarse	Gravel
PCT11	PCT11-5	1.0	0.10	Coarse	Fine Sand over Gravel
PCT11	PCT11-6	0.80	0	Coarse	Gravel
PCT12	PCT12-1	0.25	0	Coarse	Tree Root
PCT12	PCT12-2	0.60	0	Coarse	Rock
PCT12	PCT12-3	1.1	0.10	Coarse	Gravel
PCT12	PCT12-4	0.85	0	Coarse	Rock/Cobble
PCT12	PCT12-5	1.0	0.10	Coarse	Fine to Medium Sand over Rock/Cobble
PCT12	PCT12-6	0.75	1.2	Coarse	Fine to Coarse Sand, Trace Fine to Coarse Gravel

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT13	PCT13-1	0	3.0	Fine	Silt
PCT13	PCT13-2	0.80	2.0	Coarse	Fine Sand Trace Gravel
PCT13	PCT13-3	1.1	2.2	Coarse	Fine Sand over Gravel
PCT13	PCT13-4	1.0	1.8	Coarse	Fine to Medium Sand over Gravel
PCT13	PCT13-5	1.2	1.0	Coarse	Fine to Coarse Sand over Gravel
PCT13	PCT13-6	1.3	0.20	Coarse	Fine to Medium Sand, L V to Coarse Gravel
PCT13	PCT13-7	0.90	0.20	Coarse	Fine to Medium Sand, L V to Coarse Gravel
PCT13	PCT13-8	0.60	1.5	Coarse	Fine to Medium Sand, Trace Fine to Medium Gravel
PCT14	PCT14-1	0	0	Coarse	Sand Bag
PCT14	PCT14-2	1.6	1.2	Coarse	Fine Sand Between Cobble
PCT14	PCT14-3	1.9	0.20	Coarse	Fine to Medium Sand, Fine to Medium Gravel Between Cobble
PCT14	PCT14-4	1.2	0.20	Coarse	Fine to Coarse Sand over Cobble
PCT14	PCT14-5	0.60	2.0	Coarse	Fine Sand Organic over Gravel
PCT14	PCT14-6	0.40	0.30	Coarse	Fine Sand Organic over Gravel
PCT15	PCT15-1	0	0	Coarse	Concrete Footer
PCT15	PCT15-2	1.2	0.10	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Cobble
PCT15	PCT15-3	1.2	0.10	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Cobble
PCT15	PCT15-4	0.70	0	Coarse	Cobble/Rock
PCT15	PCT15-5	0.60	0	Coarse	Cobble/Rock
PCT15	PCT15-6	0	0	Coarse	Cobble/Rock/Concrete
PCT16	PCT16-1	1.3	3.5	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT16	PCT16-2	1.6	3.5	Fine	Silt Organic Fine to Medium Sand, Trace Medium to Coarse Sand
PCT16	PCT16-3	1.3	6.0	Coarse	Fine to Medium Sand, Trace Gravel
PCT16	PCT16-4	1.5	1.0	Coarse	Fine to Coarse Sand, Little Fine to Coarse Gravel
PCT16	PCT16-5	1.6	0.10	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel
PCT16	PCT16-6	1.0	3.0	Coarse	Fine to Medium Sand, Trace Medium to Coarse Sand
PCT16	PCT16-7	0.20	0	Coarse	Tree Roots
PCT17	PCT17-1	0.25	0	Coarse	Cobble
PCT17	PCT17-2	1.4	3.1	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT17	PCT17-3	1.6	3.4	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT17	PCT17-4	1.7	3.3	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT17	PCT17-5	1.6	0	Coarse	Cobble
PCT17	PCT17-6	0.35	0	Coarse	Cobble
PCT17	PCT17-7	0	0	Coarse	Tree Roots/Rock

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT18	PCT18-1	0.75	2.5	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT18	PCT18-2	1.6	2.7	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT18	PCT18-3	1.5	3.2	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT18	PCT18-4	2.1	3.3	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT18	PCT18-5	1.5	3.0	Coarse	Fine Sand, Trace Medium to Coarse Sand over Gravel
PCT18	PCT18-6	1.5	2.1	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT18	PCT18-7	0.10	0	Coarse	
PCT18	PCT18-8	0	3.0	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT19	PCT19-1	0	4.0	Fine	Fine Sand and Silt
PCT19	PCT19-2	1.0	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
PCT19	PCT19-3	1.1	5.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
PCT19	PCT19-4	1.1	2.0	Coarse	Fine to Coarse Sand, Trace/Little Fine to Coarse Gravel
PCT19	PCT19-5	1.0	3.1	Coarse	Fine to Coarse Sand, Trace/Little Fine to Coarse Gravel
PCT19	PCT19-6	0.90	3.8	Coarse	Fine to Coarse Sand, Trace/Little Fine to Coarse Gravel
PCT19	PCT19-7	0.40	5.0	Fine	Fine Sand/Silt
PCT20	PCT20-1	1.9	0.80	Coarse	Fine to Coarse Sand, Little Coarse Gravel
PCT20	PCT20-2	1.9	2.3	Coarse	Fine Sand, Trace Gravel
PCT20	PCT20-3	1.9	3.6	Coarse	Fine Sand
PCT20	PCT20-4	1.3	0.50	Coarse	Fine Sand over Gravel
PCT20	PCT20-5	1.0	6.0	Coarse	Fine Sand Trace Medium to Coarse Sand Trace Gravel
PCT20	PCT20-6	1.5	3.8	Coarse	Fine Sand to Medium to Coarse Sand, Trace Gravel
PCT20	PCT20-7	1.3	2.5	Coarse	Fine to Coarse Sand over Gravel
PCT21	PCT21-1	0	2.3	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-2	1.1	3.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-3	1.3	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-4	1.2	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-5	1.3	6.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-6	1.5	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-7	1.2	3.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT21	PCT21-8	0	2.4	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT22	PCT22-1	0	6.2	Fine	Fine Sand, Silt
PCT22	PCT22-2	1.0	3.7	Coarse	Fine to Coarse Sand over Fine Sand
PCT22	PCT22-3	1.7	4.3	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT22	PCT22-4	1.7	5.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT22	PCT22-5	1.6	4.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT22	PCT22-6	1.6	4.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT22	PCT22-7	1.4	2.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT22	PCT22-8	0	3.9	Coarse	Fine to Medium Sand

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT23	PCT23-1	0	5.5	Fine	Fine Sand, Silt
PCT23	PCT23-2	1.5	3.8	Coarse	Fine Sand
PCT23	PCT23-3	1.6	3.5	Coarse	Fine to Medium Sand
PCT23	PCT23-4	1.4	4.0	Coarse	Fine to Medium Sand, Wood
PCT23	PCT23-5	1.8	3.5	Coarse	Fine to Coarse Sand
PCT23	PCT23-6	1.8	3.2	Coarse	Fine to Coarse Sand
PCT23	PCT23-7	1.0	3.5	Coarse	Fine to Coarse Sand, Trace Fine to Medium Gravel
PCT23	PCT23-8	0	5.5	Coarse	Fine to Coarse Gravel over Fine to Coarse Gravel
PCT24	PCT24-1	0	3.0	Fine	Fine Sand, Silt
PCT24	PCT24-2	1.3	2.0	Coarse	Fine to Medium Sand over Wood
PCT24	PCT24-3	1.6	3.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT24	PCT24-4	2.0	7.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT24	PCT24-5	1.7	7.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT24	PCT24-6	1.4	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT24	PCT24-7	0	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT25	PCT25-1	0	6.0	Fine	Fine Sand, Silt
PCT25	PCT25-2	1.5	4.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT25	PCT25-3	1.7	5.7	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT25	PCT25-4	1.7	5.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT25	PCT25-5	2.2	4.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT25	PCT25-6	1.6	3.2	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Silt
PCT26	PCT26-1	0	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT26	PCT26-2	1.2	2.8	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel over Fine to Medium Sand
PCT26	PCT26-3	1.5	6.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT26	PCT26-4	1.1	6.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT26	PCT26-5	1.0	8.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT26	PCT26-6	1.2	6.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT26	PCT26-7	1.2	5.7	Coarse	Fine to Medium Sand, Trace Coarse Sand, Grey Silt/Clay on Probe Rod
PCT26	PCT26-8	0.70	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Sheens, Odor
PCT26	PCT26-9	0	2.7	Fine	Fine Sand and Silt
PCT27	PCT27-1	0	5.8	Coarse	Fine to Medium Sand, Silt, Trace Coarse Sand
PCT27	PCT27-2	0.80	4.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-3	1.1	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-4	1.0	5.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-5	1.1	6.7	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-6	0.90	7.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-7	1.0	7.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-8	1.1	9.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT27	PCT27-9	1.0	2.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Rock, Cobble
PCT27	PCT27-10	0	2.7	Coarse	Fine to Medium Sand, Trace Coarse Sand, Rock, Cobble

See Notes on Page 11.

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT28	PCT28-1	1.3	1.0	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel
PCT28	PCT28-2	0.80	1.7	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel
PCT28	PCT28-3	0.50	4.7	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel
PCT28	PCT28-4	0.70	5.7	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel
PCT28	PCT28-5	0.80	1.0	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel
PCT28	PCT28-6	0.90	0.10	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Rock/Cobble
PCT28	PCT28-7	0.95	0.10	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Rock/Cobble
PCT29	PCT29-1	0.80	5.0	Coarse	Fine to Medium Sand, Trace Fine to Medium Gravel
PCT29	PCT29-2	1.9	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT29	PCT29-3	1.9	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT29	PCT29-4	1.8	5.0	Coarse	Fine to Medium Sand
PCT29	PCT29-5	1.3	5.3	Coarse	Fine to Medium Sand
PCT29	PCT29-6	1.3	5.0	Coarse	Fine to Medium Sand
PCT30	PCT30-1	0.70	0	Coarse	Cobble/Rock
PCT30	PCT30-2	1.1	0.10	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Cobble
PCT30	PCT30-3	1.4	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT30	PCT30-4	1.6	6.1	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT30	PCT30-5	1.1	0.20	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Cobble
PCT30	PCT30-6	1.2	0.40	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Cobble
PCT30	PCT30-7	1.2	0.40	Coarse	Fine to Coarse Sand, Fine to Coarse Gravel Between Cobble
PCT31	PCT31-1	0	5.7	Coarse	Fine to Medium Sand, Trace Silt, Trace Coarse Sand, Grey Blue Sediment Odor on Rod
PCT31	PCT31-2	1.1	4.7	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT31	PCT31-3	2.0	6.0	Coarse	Fine to Medium Sand
PCT31	PCT31-4	2.7	5.3	Coarse	Fine to Medium Sand
PCT31	PCT31-5	3.1	4.1	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT31	PCT31-6	3.1	2.4	Coarse	Fine to Medium Sand
PCT31	PCT31-7	1.1	2.4	Coarse	Fine to Medium Sand
PCT31	PCT31-8	2.4	2.5	Coarse	Fine to Medium Sand, Trace Silt
PCT32	PCT32-1	0.80	4.7	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Silt
PCT32	PCT32-2	1.3	6.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Silt
PCT32	PCT32-3	1.1	8.0	Coarse	Fine to Medium Sand
PCT32	PCT32-4	1.1	6.6	Coarse	Fine to Medium Sand
PCT32	PCT32-5	1.0	6.9	Coarse	Fine to Medium Sand
PCT32	PCT32-6	0.90	4.2	Coarse	Fine to Medium Sand, Trace Gravel
PCT32	PCT32-7	1.2	4.7	Coarse	Fine to Medium Sand
PCT32	PCT32-8	1.3	5.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Silt

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT33	PCT33-1	0.50	0.50	Fine	Fine Sand/Silt over Rock/Cobble (Retaining Wall)
PCT33	PCT33-2	0.50	5.2	Coarse	Fine to Medium Sand, Trace Silt
PCT33	PCT33-3	0.60	9.0	Coarse	Fine to Medium Sand, Trace Silt over Fine Sand/Silt
PCT33	PCT33-4	0.80	9.0	Coarse	Fine to Medium Sand, Trace Silt over Fine Sand/Silt
PCT33	PCT33-5	0.80	9.0	Coarse	Fine to Medium Sand, Trace Silt over Fine Sand/Silt
PCT33	PCT33-6	0.80	9.0	Coarse	Fine to Medium Sand, Trace Silt over Fine Sand/Silt
PCT33	PCT33-7	1.0	6.0	Coarse	Fine to Medium Sand, Trace Silt
PCT33	PCT33-8	1.0	9.0	Coarse	Fine to Medium Sand, Trace Silt over Fine Sand/Silt
PCT33	PCT33-9	1.0	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT33	PCT33-10	0.80	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Coarse Gravel
PCT34	PCT34-1	0.70	0.10	Coarse	Fine to Coarse Gravel Between Cobble (Retaining Wall)
PCT34	PCT34-2	0.80	4.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel
PCT34	PCT34-3	0.80	9.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT34	PCT34-4	0.90	8.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT34	PCT34-5	0.90	8.4	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT34	PCT34-6	0.90	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT34	PCT34-7	0.90	5.3	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT34	PCT34-8	1.0	6.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT34	PCT34-9	1.0	0.10	Coarse	Fine to Coarse Gravel and Fine to Coarse Gravel (Retaining Wall)
PCT35	PCT35-1	0.20	2.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Coarse Gravel
PCT35	PCT35-2	0.30	2.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Coarse Gravel
PCT35	PCT35-3	0.40	1.9	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Coarse Gravel
PCT35	PCT35-4	0.60	1.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Coarse Gravel
PCT35	PCT35-5	0.70	3.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT35	PCT35-6	1.0	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT35	PCT35-7	1.4	6.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT35	PCT35-8	1.4	1.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT35	PCT35-9	1.1	0	Coarse	Cobble/Rock/Retaining Wall
PCT36	PCT36-1	1.8	0.10	Coarse	Fine to Coarse Gravel Between Cobble
PCT36	PCT36-2	1.9	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT36	PCT36-3	2.0	3.1	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT36	PCT36-4	2.0	3.7	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT36	PCT36-5	1.8	2.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT36	PCT36-6	1.1	0.10	Coarse	Fine to Medium Sand, Trace Coarse Sand Between Cobble

See Notes on Page 11.

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT37	PCT37-1	0	0	Coarse	Cobble
PCT37	PCT37-2	1.0	1.7	Coarse	Fine to Coarse Sand, Trace Gravel
PCT37	PCT37-3	0.90	3.1	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT37	PCT37-4	1.0	4.9	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT37	PCT37-5	1.1	4.5	Coarse	Fine to Medium Sand
PCT37	PCT37-6	1.2	4.1	Coarse	Fine to Medium Sand
PCT37	PCT37-7	0.90	3.5	Coarse	Fine to Medium Sand
PCT37	PCT37-8	0.80	3.8	Coarse	Fine to Medium Sand
PCT37	PCT37-9	0	0	Coarse	Cobble
PCT38	PCT38-1	0	0	Coarse	Cobble
PCT38	PCT38-2	0.70	1.5	Coarse	Fine to Medium Sand over Rock
PCT38	PCT38-3	0.70	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT38	PCT38-4	0.70	5.1	Coarse	Fine to Medium Sand
PCT38	PCT38-5	0.75	4.2	Coarse	Fine to Medium Sand
PCT38	PCT38-6	1.0	5.2	Coarse	Fine to Medium Sand
PCT38	PCT38-7	1.5	4.2	Coarse	Fine to Medium Sand
PCT38	PCT38-8	1.5	2.7	Coarse	Fine to Medium Sand over Rock/Cobble
PCT38	PCT38-9	1.5	4.1	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT38	PCT38-10	0	0	Coarse	Cobble
PCT39	PCT39-1	0	0	Coarse	Cobble
PCT39	PCT39-2	1.7	4.8	Coarse	Fine to Medium Sand
PCT39	PCT39-3	1.6	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT39	PCT39-4	1.4	3.3	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT39	PCT39-5	1.2	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT39	PCT39-6	1.4	2.8	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT39	PCT39-7	1.4	3.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT39	PCT39-8	0	0	Coarse	Cobble
PCT40	PCT40-1	0	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Petroleum Odor
PCT40	PCT40-2	1.1	3.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT40	PCT40-3	1.2	3.7	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT40	PCT40-4	1.2	3.6	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT40	PCT40-5	1.1	2.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT40	PCT40-6	1.2	3.6	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT40	PCT40-7	1.3	3.1	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT40	PCT40-8	1.3	2.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT40	PCT40-9	0	3.3	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT41	PCT41-1	0	1.0	Coarse	Coarse Gravel (Railroad Ballast)
PCT41	PCT41-2	0.50	3.4	Coarse	Fine to Coarse Sand and Fine to Medium Gravel
PCT41	PCT41-3	0.60	5.1	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT41	PCT41-4	1.0	3.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT41	PCT41-5	1.2	2.4	Coarse	Fine to Medium Sand over Rock (Cobble)
PCT41	PCT41-6	1.1	3.1	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT41	PCT41-7	1.2	2.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT41	PCT41-8	1.0	2.1	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT41	PCT41-9	0.75	2.8	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT42	PCT42-1	0	0	Coarse	Gravel/Cobble
PCT42	PCT42-2	1.6	1.0	Coarse	Fine to Coarse Sand and Fine to Coarse Gravel
PCT42	PCT42-3	2.0	5.0	Coarse	Coarse Sand/Gravel over Fine to Medium Sand
PCT42	PCT42-4	2.0	4.2	Coarse	Coarse Sand/Gravel over Fine to Medium Sand
PCT42	PCT42-5	2.0	4.2	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT42	PCT42-6	1.3	3.2	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT42	PCT42-7	0	2.3	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT43	PCT43-1	1.5	0	Coarse	Coarse Gravel (Railroad Ballast)
PCT43	PCT43-2	1.1	0.10	Coarse	Coarse Gravel (Railroad Ballast)
PCT43	PCT43-3	1.0	0.10	Coarse	Coarse Gravel (Railroad Ballast)
PCT43	PCT43-4	0.35	0.10	Coarse	Coarse Gravel (Railroad Ballast)
PCT43	PCT43-5	0.35	0	Coarse	Coarse Gravel (Railroad Ballast)
PCT43	PCT43-6	0	0	Coarse	Coarse Gravel (Railroad Ballast)
PCT44	PCT44-1	0	2.0	Fine	Silt over Fine to Medium Sand
PCT44	PCT44-2	0.90	2.7	Coarse	Fine Sand over Coarse Sand and Gravel
PCT44	PCT44-3	1.9	3.2	Coarse	Fine to Medium Sand
PCT44	PCT44-4	2.0	2.5	Coarse	Fine to Medium Sand
PCT44	PCT44-5	1.5	2.4	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT44	PCT44-6	1.1	2.3	Coarse	Fine Sand and Silt over Sand and Gravel
PCT44	PCT44-7	0	2.5	Coarse	Fine Sand and Silt over Sand and Gravel
PCT45	PCT45-1	0	2.4	Fine	Silt over Hard Bottom
PCT45	PCT45-2	1.0	3.9	Coarse	Fine Sand, Trace Medium to Coarse Sand
PCT45	PCT45-3	1.1	1.4	Coarse	Fine to Coarse Sand , Trace Fine to Coarse Gravel
PCT45	PCT45-4	1.2	2.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT45	PCT45-5	1.2	2.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel, Sheen Noted
PCT45	PCT45-6	1.3	2.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT45	PCT45-7	1.4	1.9	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT46	PCT46-1	1.5	3.0	Coarse	Fine Sand and Silt over Sand and Gravel
PCT46	PCT46-2	1.6	2.9	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT46	PCT46-3	1.8	3.1	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT46	PCT46-4	1.6	2.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT46	PCT46-5	1.4	0.10	Coarse	Fine Sand Between Cobble and Brick
PCT46	PCT46-6	0	0	Coarse	Cobble/Brick
PCT47	PCT47-1	0.55	2.4	Fine	Fine Sand and Silt
PCT47	PCT47-2	1.3	2.7	Fine	Fine Sand and Silt
PCT47	PCT47-3	1.6	2.4	Coarse	Fine Sand and Silt over Fine to Coarse Sand
PCT47	PCT47-4	3.2	2.6	Coarse	Fine Sand, Trace Coarse Sand
PCT47	PCT47-5	3.4	0.20	Coarse	Fine to Coarse Gravel
PCT47	PCT47-6	1.9	1.7	Coarse	Fine to Coarse Gravel over Fine to Medium Sand
PCT47	PCT47-7	0	0	Coarse	Cobble/Brick/Concrete
PCT48	PCT48-1	0.60	3.3	Coarse	Fine Sand and Silt over Gravel
PCT48	PCT48-2	3.5	2.9	Coarse	Fine Sand and Silt over Gravel
PCT48	PCT48-3	4.1	2.1	Coarse	Fine to Medium Sand over Wood
PCT48	PCT48-4	3.3	2.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT48	PCT48-5	2.5	1.6	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT48	PCT48-6	2.0	0	Coarse	Gravel
PCT48	PCT48-7	0	0	Coarse	Gravel Between Cobble/Brick/Concrete
PCT49	PCT49-1	0	6.0	Fine	Light Gray Fine Sand and Silt
PCT49	PCT49-2	2.0	4.5	Fine	Fine Sand and Silt
PCT49	PCT49-3	2.0	3.6	Coarse	Fine to Medium Sand
PCT49	PCT49-4	1.9	3.8	Coarse	Fine to Coarse Sand over Fine to Medium Sand
PCT49	PCT49-5	1.2	4.5	Coarse	Fine to Coarse Sand, Trace Fine to Coarse Gravel Ovr Fine to Medium Sand
PCT49	PCT49-6	0	4.5	Coarse	Fine to Coarse Sand, Trace Fine to Coarse Gravel Ovr Fine to Medium Sand
PCT50	PCT50-1	0	4.2	Coarse	Fine to Coarse Sand over Fine Sand
PCT50	PCT50-2	1.4	3.3	Coarse	Fine to Coarse Sand over Fine Sand
PCT50	PCT50-3	1.8	0.10	Coarse	Fine to Coarse Sand over Fine to Coarse Gravel
PCT50	PCT50-4	2.1	3.0	Coarse	Fine to Coarse Sand over Fine to Coarse Gravel over Fine to Medium Sand
PCT50	PCT50-5	1.3	3.8	Coarse	Fine to Coarse Sand over Fine to Coarse Gravel over Fine to Medium Sand
PCT50	PCT50-6	0	3.9	Coarse	Fine to Coarse Sand over Fine to Coarse Gravel over Fine to Medium Sand
PCT51	PCT51-1	0	1.0	Fine	Fine Sand and Silt, Sheen Observed
PCT51	PCT51-2	1.8	0	Coarse	Concrete/Cobble
PCT51	PCT51-3	2.3	1.5	Coarse	Fine to Coarse Sand, Trace Fine to Medium Gravel
PCT51	PCT51-4	2.3	2.6	Coarse	Fine to Coarse Sand, Trace Fine to Medium Gravel
PCT51	PCT51-5	2.2	2.8	Coarse	Fine to Coarse Sand, Trace Fine to Medium Gravel, over Fine to Medium Sand
PCT51	PCT51-6	2.0	2.7	Coarse	Fine Sand and Silt over Fine to Coarse Sands
PCT51	PCT51-7	1.0	3.2	Coarse	Fine to Medium Sands Between Cobble, Sheen Observed
PCT51	PCT51-8	0	4.0	Coarse	Fine to Medium Sand, Little Silt, Sheen Observed

See Notes on Page 11.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-17 – Sediment Transect Probing Data - Portage Creek Transects

Transect	Location ID	Water Depth (ft)	Sediment Thickness (ft)	Texture Class	Sediment Description
PCT52	PCT52-1	0	1.2	Fine	Silt and Light Gray Material
PCT52	PCT52-2	1.6	5.9	Fine	Fine Sand and Silt With Light Gray Material
PCT52	PCT52-3	1.8	5.4	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT52	PCT52-4	2.1	5.0	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT52	PCT52-5	1.8	6.4	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT52	PCT52-6	1.4	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT52	PCT52-7	1.3	5.5	Coarse	Fine to Medium Sand, Trace Coarse Sand
PCT52	PCT52-8	1.3	5.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Light Gray Silt
PCT52	PCT52-9	1.2	3.8	Fine	Light Gray Fine Sand and Silt
PCT52	PCT52-10	1.0	3.5	Fine	Light Gray Fine Sand and Silt
PCT53	PCT53-1	0	5.0	Fine	Fine Sand and Silt over Sand
PCT53	PCT53-2	1.3	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Light Gray Silt
PCT53	PCT53-3	1.9	4.2	Fine	0.1' Fine Sand over Gray Clay-Like Material
PCT53	PCT53-4	2.0	9.0	Coarse	Fine to Medium Sand
PCT53	PCT53-5	1.4	8.1	Coarse	Fine to Medium Sand, Trace Sheen
PCT53	PCT53-6	0.93	8.1	Coarse	Fine to Medium Sand, Trace Sheen
PCT53	PCT53-7	0.75	8.1	Coarse	Fine to Medium Sand, Trace Sheen
PCT53	PCT53-8	1.0	4.5	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT53	PCT53-9	1.2	6.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel
PCT53	PCT53-10	0	4.0	Coarse	Fine to Medium Sand, Trace Coarse Sand, Trace Gravel, Trace Silt, Trace Organics

Notes:
-- Not applicable.
No probing conducted, restricted area.
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-19 – Summary of Sediment Transect Probing Data - Portage Creek Transects

Transect	Water Depth		Probed Sediment Thickness	
	Range (ft)	Mean (ft)	Range (ft)	Mean (ft)
PCT1	0 - 0.50	0.36	0 - 0	0
PCT2	--	--	--	--
PCT3	0.80 - 1.5	1.1	0.20 - 2.2	0.73
PCT4	0.50 - 1.3	0.96	0 - 1.0	0.33
PCT5	0 - 1.1	0.68	0 - 1.1	0.49
PCT6	0 - 1.3	0.47	0 - 1.2	0.29
PCT7	0 - 1.6	0.72	0 - 1.5	0.30
PCT8	0 - 1.4	0.69	0.10 - 4.0	1.1
PCT9	0.40 - 1.2	0.98	0.10 - 1.7	0.58
PCT10	0.40 - 1.9	1.5	0.20 - 1.4	0.80
PCT11	0.30 - 1.3	0.95	0 - 2.5	0.78
PCT12	0.25 - 1.1	0.76	0 - 1.2	0.23
PCT13	0 - 1.3	0.86	0.20 - 3.0	1.5
PCT14	0 - 1.9	0.95	0 - 2.0	0.65
PCT15	0 - 1.2	0.62	0 - 0.10	0.033
PCT16	0.20 - 1.6	1.2	0 - 6.0	2.4
PCT17	0 - 1.7	0.99	0 - 3.4	1.4
PCT18	0 - 2.1	1.1	0 - 3.3	2.5
PCT19	0 - 1.1	0.78	2.0 - 5.0	3.8
PCT20	1.0 - 1.9	1.5	0.50 - 6.0	2.8
PCT21	0 - 1.5	0.95	2.3 - 6.0	3.7
PCT22	0 - 1.7	1.1	2.5 - 6.2	4.3
PCT23	0 - 1.8	1.1	3.2 - 5.5	4.1
PCT24	0 - 2.0	1.1	2.0 - 7.8	4.4
PCT25	0 - 2.2	1.5	3.2 - 6.0	4.9
PCT26	0 - 1.5	0.87	2.7 - 8.5	5.2
PCT27	0 - 1.1	0.80	2.5 - 9.0	5.6
PCT28	0.50 - 1.3	0.84	0.10 - 5.7	2.0
PCT29	0.80 - 1.9	1.5	4.0 - 5.3	4.7
PCT30	0.70 - 1.6	1.2	0 - 6.1	1.7
PCT31	0 - 3.1	1.9	2.4 - 6.0	4.1
PCT32	0.80 - 1.3	1.1	4.2 - 8.0	5.8
PCT33	0.50 - 1.0	0.78	0.50 - 9.0	6.3
PCT34	0.70 - 1.0	0.88	0.10 - 9.0	5.1
PCT35	0.20 - 1.4	0.79	0 - 6.8	2.5
PCT36	1.1 - 2.0	1.8	0.10 - 3.7	2.1
PCT37	0 - 1.2	0.77	0 - 4.9	2.8
PCT38	0 - 1.5	0.83	0 - 5.2	3.2
PCT39	0 - 1.7	1.1	0 - 4.8	2.6
PCT40	0 - 1.3	0.93	2.2 - 4.5	3.3

See Notes on Page 2.

Table 3-19 – Summary of Sediment Transect Probing Data - Portage Creek Transects

Transect	Water Depth		Probed Sediment Thickness	
	Range (ft)	Mean (ft)	Range (ft)	Mean (ft)
PCT41	0 - 1.2	0.81	1.0 - 5.1	2.9
PCT42	0 - 2.0	1.3	0 - 5.0	2.8
PCT43	0 - 1.5	0.70	0 - 0.10	0.050
PCT44	0 - 2.0	1.1	2.0 - 3.2	2.5
PCT45	0 - 1.4	1.0	1.4 - 3.9	2.4
PCT46	0 - 1.8	1.3	0 - 3.1	1.9
PCT47	0 - 3.4	1.7	0 - 2.7	1.7
PCT48	0 - 4.1	2.3	0 - 3.3	1.7
PCT49	0 - 2.0	1.2	3.6 - 6.0	4.5
PCT50	0 - 2.1	1.1	0.10 - 4.2	3.1
PCT51	0 - 2.3	1.4	0 - 4.0	2.2
PCT52	0 - 2.1	1.3	1.2 - 6.4	4.6
PCT53	0 - 2.0	1.0	4.0 - 9.0	6.2

Notes:
-- Not applicable.
No probing conducted, restricted area.
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-20 – Summary of Sediment Texture - Portage Creek Transects

Transect	Number of Core Locations	Number of Coarse Sediment Locations	Number of Fine Sediment Locations
PCT1	7	7	0
PCT3	6	6	0
PCT4	7	7	0
PCT5	7	7	0
PCT6	9	9	0
PCT7	6	6	0
PCT8	8	8	0
PCT9	6	6	0
PCT10	6	6	0
PCT11	6	6	0
PCT12	6	6	0
PCT13	8	7	1
PCT14	6	6	0
PCT15	6	6	0
PCT16	7	6	1
PCT17	7	7	0
PCT18	8	8	0
PCT19	7	5	2
PCT20	7	7	0
PCT21	8	8	0
PCT22	8	7	1
PCT23	8	7	1
PCT24	7	6	1
PCT25	6	5	1
PCT26	9	8	1
PCT27	10	10	0
PCT28	7	7	0
PCT29	6	6	0
PCT30	7	7	0
PCT31	8	8	0
PCT32	8	8	0
PCT33	10	9	1
PCT34	9	9	0
PCT35	9	9	0
PCT36	6	6	0
PCT37	9	9	0
PCT38	10	10	0
PCT39	8	8	0
PCT40	9	9	0
PCT41	9	9	0
PCT42	7	7	0
PCT43	6	6	0
PCT44	7	6	1

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-20 – Summary of Sediment Texture - Portage Creek Transects

Transect	Number of Core Locations	Number of Coarse Sediment Locations	Number of Fine Sediment Locations
PCT45	7	6	1
PCT46	6	6	0
PCT47	7	5	2
PCT48	7	7	0
PCT49	6	4	2
PCT50	6	6	0
PCT51	8	7	1
PCT52	10	6	4
PCT53	10	8	2
Total	**388**	**365 (94%)**	**23 (6%)**

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-21 – Sediment Deposit Descriptions -- Portage Creek

Sediment Deposit ID	Stream Location (bounding transects)		Channel Location	Length (ft)	Width (ft)	Average Depth (ft)	Volume (ft^3)	Geomorphic Feature	Material Description	Notes
1	4	5	East bank	12	4	1	48		Fine sand, little silt, trace oil sheen.	75' down from T-4; channel deposit throughout fine sand to coarse sand; between fine gravel to coarse gravel.
2	4	5	East bank	25	3	0.75	56.25		Fine sand to medium sand, little silt, trace sheen.	33' up from T-5.
3	5	6	East bank	10	4	0.75	30		Fine silt, silts between rock and brick.	Sewage odor, 10' feet down left bank at T-5.
4	5	6	East bank	65	4.5	3.5	1023.75		Exposed sediment, grey waste material.	Localized grey waste in water at 85' and in exposed sediment, low terrace within raceway (vegetated), starts 35' down west bank.
5	6	7	In channel	6	6	1	36	Aggrading bar	Fine to medium sand with coarse sand, fine gravel, vegetation.	22' off east bank.
6	6	7	East bank	15	2	1.2	36		Exposed sediment.	
7	6	7	East bank	40	4	2	320		Exposed sediment.	Extension of S-4.
8	6	7	East bank	25	12	1.2	360	Deposit	Fine to coarse sand, gravel, brick, rock, concrete.	Between center pier and left wall, under old industry bridge #1.
9	6	7	West bank	22	8	2	352	Deposit	Fine to coarse sand, fine to coarse gravel, rock, brick, debris.	Just after old industrial bridge #1.
10	7	8	East bank	60	7	0.75	315	Low terrace	Fine to medium sand over fine to coarse sand, fine and coarse gravel.	Grading to channel deposit, starts 15' downstream from T-7.
11	9	10	East bank	30	4	2.5	300		Fine to medium sand.	Ends 12' up from T-10.
12	10	11	West bank	25	8	1.2	240		Fine to medium sand, some fine gravel, little silt.	Ends +/- 30' upstream of T-11.
13	11	12	West bank	45	9	2	810		Fine sand over gravel, little silt.	Starts at T-12, goes upstream 45'.
14	12	13	East bank	15	8	1	120		V.L.S. (???) Fine silt.	Eddy area 60' upstream of T-13.
15	12	13	West bank	15	7	1.5	157.5		Fine sand and silt.	30' upstream of T-13.
16a	13	14		15	10	1.5	225		Organic silt over fine sand.	Behind downfall.
16b	14	15	East bank	25	5	1.5	187.5		Fine sand.	Starts at T-14 behind vegetation.
17	14	15	East bank	100	5	1.5	750		Fine sand.	100' downstream of T-14.
18	16	17	East bank	20	5	3	300		Fine sand and silt with organic mixed in.	80' upstream of T-17.
19	17	18		25	7	2.5	437.5		Fine sand.	+/- 100 downstream of T-17.
20	19	20				3.5	0		Very loose/soft silt and detritus over fine sands/silt. Sheens prevalent while probing.	50-150' downstream of T-19, good location for sediment core.
21	24	25					0		Very loose soft fine sand, silt.	100-150' downstream of T-24, EOW to EOW.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-21 – Sediment Deposit Descriptions -- Portage Creek

Sediment Deposit ID	Stream Location (bounding transects)		Channel Location	Length (ft)	Width (ft)	Average Depth (ft)	Volume (ft^3)	Geomorphic Feature	Material Description	Notes
22	25	26		25	10	5	1250		Fine sand, silt, sediment builded up, organic (leaves trees).	5' probed upstream of crosstown parkway bridge.
23	26	27	East bank				0		Grey blue sediment.	Beginning at Crosstown Parkway bridge downstream to T-27, 5-10' out of EOW.
24	31	32	West bank				0		Grey sediment with odor.	Appears to be localized.
25	39	40		6	6	4.5	162	Deposit	Primarily fine sands/silt, petroleum type odor.	Sediment deposit at 30" concrete pipe outfall.
26	41	42	East bank	5	10	2.5	125		Fine sands/silts.	In washed-out bank area; 50' upstream of T-42.
27	41	42	East bank	10	10	2.5	250		Fine sands/silts.	In washed-out bank area; 20' upstream of T-42.
28	47	48	West bank	25	7.5	2.5	468.75	Deposit	Fine sand/silt depositional area.	Starting at T-47.
29	48	49	West bank	75	10	2	1500		Light gray claylike material exposed in some places.	100-175' downstream of T-48 adjacent to driven sheetpile wall.
30	49	50	East bank		7.5	3.5	0		Gray claylike material exposed intermittently along creek banks, predominantly "b" side.	
31	50	51	East bank				0		Exposed gray claylike material on both sides of creek in bank, predominantly along "b" side.	Sometimes gray material is exposed as high as 4' above current water level.
32	51	52	West bank				0		Gray claylike material along banks (predominantly "a" side).	Starts immediately downstream of Michigan Ave. bridge to T-52.
33	52	53	In channel	60	25	4.5	6750		"Island".	
34	52	53	East and West bank				0		Gray claylike material along both banks intermittently.	Between T-52 and T-53.
35			West bank				0		Gray claylike material exposed intermittently along T-53 to 25-30' at sediment surface.	

Notes:
ft - feet

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-22 - Portage Creek 100-year Floodplain Elevation Comparison

FEMA Transect ID	Location	Distance from Confluence with Kalamazoo River (ft)	FEMA 100-Year Floodplain Elevation (ft)	West of Portage Creek		East of Portage Creek	
				ARCADIS Survey Elevation (ft)	Difference (ft)	ARCADIS Survey Elevation (ft)	Difference (ft)
A	**Conrail Bridge**	**1010**	**762.1**				
B	**Conrail Bridge**	**1608**	**762.1**				
C	**Portage Creek**	**3671**	**764.4**	**763.5**	**0.9**	**763.3**	**1.1**
D	**Walnut Street**	**3992**	**764.6**	**761.5**	**3.1**	**763.3**	**1.3**
		4349	764.6			763.1	1.6
		4409	764.7	761.6	3.0		
		4409	764.7			762.9	1.8
		4826	764.7	761.5	3.2		
		5243	764.8	763.9	0.9		
		5243	764.8	763.5	1.3		
		5869	764.8			764.9	0.1
		5869	764.8			764.9	0.1
		5869	764.8			764.9	0.1
		5869	764.8	764.2	0.6		
		5869	764.8	763.6	1.2		
		6244	764.9	765.3	0.4		
		6244	764.9			764.1	0.8
E	**Lake Street**	**6494**	**764.9**				
		6995	765.0			764.5	0.5
F	**Stockbridge Avenue**	**7496**	**765.0**	**765.9**	**0.9**		
		7909	765.1			763.2	1.9
		7909	765.1	764.8	0.3		
		7909	765.1	764.5	0.6		
		7909	765.1	763.3	1.8		

See Notes on Page 2.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-22 - Portage Creek 100-year Floodplain Elevation Comparison

FEMA Transect ID	Location	Distance from Confluence with Kalamazoo River (ft)	FEMA 100-Year Floodplain Elevation (ft)	West of Portage Creek		East of Portage Creek	
				ARCADIS Survey Elevation (ft)	Difference (ft)	ARCADIS Survey Elevation (ft)	Difference (ft)
G	**Clinton Street**	**8321**	**765.2**				
H	**Reed Avenue**	**8821**	**766.4**				
I	**Upstream of Private Footbridge**	**9103**	**768.2**				
J	**Bryant Street**	**9731**	**769.3**	**769.2**	**0.1**	**770.6**	**1.3**
Maximum Difference					3.2		1.9
Average Difference					1.3		1.0

Notes:
FEMA = Federal Emergency Management Agency.
ft - feet.
Vertical elevations are in ft, NGVD 29 .
ARCADIS survey conducted between September 25, 2007 and September 27, 2007.
FEMA 100-year floodplain elevations and distances obtained from the City of Kalamazoo Flood Insurance Study (FEMA, 1984).
Values in bold are located at FEMA HEC-2 model transects. FEMA 100-year floodplain elevations and distances between transects have been interpolated using upstream and downstream transect values.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 3-23 - Portage Creek Bridge Elevation Comparison

Bridge Location	ARCADIS Survey Elevation (ft)	FEMA HEC-2 Model Elevation (ft)	Difference (ft)
Pitcher Street	763.1	763.2	0.10
Portage Street	762.29	762.3	0.01
Walnut Street	761.65	761.7	0.05
Dutton Street	761.5	761.5	0.00
Vine Street	761.62	761.6	0.02
Crosstown Parkway	762.55	762.4	0.15
Footbridge	762.75	762.1	0.65
Lake Street	763.12	762.6	0.52
Stockbridge Avenue	766.24	766.1	0.14
Reed Avenue	770.73	770.5	0.23
Bryant Street	772.33	772.4	0.07
Alcott Street	786.99	787.4	0.41
Maximum Difference			0.65
Average Difference			0.20

Notes:
FEMA = Federal Emergency Management Agency.
ft - feet.
Vertical elevations are in ft, NGVD 29.
ARCADIS survey conducted between September 25, 2007 and September 27, 2007.
FEMA HEC-2 model elevations obtained from HEC-2 model input.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-1 – TCRA Surface Water Monitoring Results

Sample Date	10th Street Plainwell			Farmer Street, Otsego			
	Sample ID	PCB Result (ug/L)	TSS Results (mg/L)	Sample ID	PCB Result	TSS Results	Notes
10/6/2007	K30700	< 0.049	4.4	K30701	< 0.048	12.1	
10/9/2007	K30703	< 0.049	14.1	K30702	< 0.047	15.2	
10/10/2007	K30704	< 0.049	4.9	K30705	< 0.051	13.7	
10/12/2007	K30706	< 0.047	5.9	K30707	< 0.051	12.8	
10/14/2007	K30709	< 0.049	9.5	K30710	< 0.047	3.8	
10/16/2007	K30712	< 0.047	28.5	K30713	< 0.048	9.5	
10/18/2007	K30714	< 0.047	6.8	K30715	< 0.047	6.7	
10/20/2007	K30716	< 0.047	11.4	K30717	< 0.050	19.4	
10/22/2007	K30718	< 0.051	9.4	K30719	< 0.053	4.8	
10/24/2007	K30720	< 0.047	3.1	K30721	< 0.051	3.1	
10/26/2007	K30722	< 0.051	6.4	K30723	< 0.049	2.0	
10/28/2007	K30724	< 0.047	4.1	K30725	< 0.052	2.1	
10/30/2007	K30726	< 0.047	2.7	K30727	< 0.047	3.4	
11/1/2007	K30728	< 0.051	1.3	K30729	< 0.054	5.7	
11/3/2007	K30730	< 0.047	0.8	K30731	< 0.055	0.7	
11/5/2007	K30732	< 0.051	2.9	K30733	< 0.052	2.4	
11/7/2007	K30734	< 0.047	1.8	K30735	< 0.052	0.7	MS/MSD collected
				[K30736]	[< 0.051]	[1.1]	
11/9/2007	K30737	< 0.047	1.4	K30738	< 0.048	0.5	
11/11/2007	K30740	< 0.048	1.5	K30739	< 0.053	2.1	
11/13/2007	K30741	< 0.047	11.1	K30742	< 0.054	< 0.50	
11/15/2007	K30743	< 0.051	4.3	K30744	< 0.048	0.9	
11/17/2007	K30745	< 0.051	2.0	K30746	< 0.051	0.8	
11/19/2007	K30747	< 0.048	2.1	K30748	< 0.048	1.1	
11/21/2007	K30749	< 0.048	3.6	K30750	< 0.048	1.7	
11/23/2007	K30751	< 0.047	3.8	K30752	< 0.074	19.4	
11/25/2007	K30753	< 0.047	2.4	K30754	< 0.047	4.0	

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-1 – TCRA Surface Water Monitoring Results

Sample Date	10th Street Plainwell			Farmer Street, Otsego			
	Sample ID	PCB Result (ug/L)	TSS Results (mg/L)	Sample ID	PCB Result	TSS Results	Notes
11/27/2007	K30755	< 0.060	4.1	K30756	< 0.058	5.5	
11/29/2007	K30757	< 0.050	2.5	K30758	< 0.052	2.2	MS/MSD collected
	K30760			[K30759]	[< 0.053]	[16]	
12/1/2007	K30761	< 0.048	3.5				No Farmer Street sampler due to sample freezing.
12/3/2007	K30763	< 0.051	4.9	K30762	< 0.066	20.5	
12/5/2007	K30765	< 0.051	2.5	K30764	< 0.051	4.6	
12/7/2007	K30767	< 0.054	2.5	K30766	< 0.047	11.4	
12/9/2007	K30769	< 0.047	2.9	K30768	< 0.052	3.3	
12/11/2007	K30771	< 0.047	2.1	K30770	< 0.047	3.5	
12/13/2007	K30773	< 0.047	2.7	K30772	< 0.047	4.1	
12/15/2007	K30775	< 0.047	4.3	K30774	< 0.047	3.0	
12/17/2007	K30777	< 0.047	2.4	K30776	< 0.047	3.5	
12/19/2007	K30701	< 0.047	2.2	K30778	< 0.047	5.6	

Notes:
MS/MSD - Matrix Spike/Matrix Spike Duplicate
ug/L - micrograms per liter
mg/L - milligrams per liter
TSS - total suspended solids
PCB - polychlorinated biphenyls

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Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-2 – Yearling Smallmouth Bass Whole-Body Composite Samples

Composite Sample ID	Date	Length (cm)	Weight (g)	Percent Lipids	Total PCB (mg/kg)
SMB-08	11/6/2007	16	43	2.9	3.1
SMB-09	11/7/2007	15	40	2.6	2.5
SMB-10	11/7/2007	16	48	2.3	2.9
SMB-11	11/7/2007	14	38	2.5	2.9
SMB-12	11/7/2007	16	55	2.6	3.3
Mean		**15**	**45**	**2.6**	**3.0**
Standard Deviation		**0.74**	**6.8**	**0.22**	**0.29**
Median		**16**	**43**	**2.6**	**2.9**

Notes:
PCB - polychlorinated biphenyls
cm - centimeters
g - grams
mg/kg - milligrams per kilogram

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-3 – Bathymetric Surveying in the Former Plainwell Impoundment

Transect	Location ID	Easting (ft, NAD 1983)	Northing (ft, NAD 1983)	Water Surface Elevation (ft , NGVD 1929)	Sediment Elevation (ft , NGVD 1929)
T2	T2-1	12772166.90	350608.30	706.7	706.7
T2	T2-2	12772177.50	350611.10	706.7	701.7
T2	T2-3	12772188.10	350614.00	706.7	698.0
T2	T2-4	12772198.70	350616.90	706.7	700.7
T2	T2-5	12772209.40	350619.80	706.7	701.2
T2	T2-6	12772220.00	350622.70	706.7	701.5
T2	T2-7	12772230.60	350625.60	706.7	701.4
T2	T2-8	12772241.20	350628.50	706.7	701.3
T2	T2-9	12772251.80	350631.40	706.7	700.8
T2	T2-10	12772262.40	350634.30	706.7	699.9
T2	T2-11	12772273.00	350637.10	706.7	700.3
T2	T2-12	12772283.70	350640.00	706.7	699.5
T2	T2-13	12772294.30	350642.90	706.7	700.5
T2	T2-14	12772304.90	350645.80	706.7	700.7
T2	T2-15	12772315.50	350648.70	706.7	706.1
T3	T3-1	12772321.80	350383.60	706.8	706.8
T3	T3-2	12772330.40	350390.50	706.8	702.0
T3	T3-3	12772339.10	350397.30	706.8	702.0
T3	T3-4	12772347.70	350404.20	706.8	701.8
T3	T3-5	12772356.30	350411.00	706.8	701.8
T3	T3-6	12772364.90	350417.80	706.8	701.5
T3	T3-7	12772373.50	350424.70	706.8	700.7
T3	T3-8	12772382.10	350431.50	706.8	700.9
T3	T3-9	12772390.70	350438.40	706.8	700.4
T3	T3-10	12772399.40	350445.20	706.8	699.8
T3	T3-11	12772436.90	350475.50	706.8	706.8
T3	T3-11	12772408.00	350452.00	706.8	699.5
T3	T3-12	12772433.80	350471.30	706.8	706.8
T3	T3-12	12772416.60	350458.90	706.8	699.8
T3	T3-13	12772425.20	350465.70	706.8	700.8
T3	T3-13	12772429.40	350468.90	706.8	706.8
T3	T3-14	12772421.10	350464.50	706.8	706.8
T3	T3-14	12772433.80	350472.60	706.8	702.0
T3	T3-15	12772413.40	350457.50	706.8	706.8
T3	T3-15	12772439.30	350476.90	706.8	706.5
T4	T4-1	12772454.70	350234.30	706.8	706.6
T4	T4-2	12772463.30	350239.40	706.8	703.8
T4	T4-3	12772471.80	350244.60	706.8	701.8
T4	T4-4	12772480.30	350249.80	706.8	699.5
T4	T4-5	12772488.90	350255.00	706.8	697.5
T4	T4-6	12772497.40	350260.30	706.8	696.8
T4	T4-7	12772505.90	350265.50	706.8	696.5
T4	T4-8	12772514.50	350270.70	706.8	696.6
T4	T4-9	12772523.00	350275.90	706.8	698.8
T4	T4-10	12772531.50	350281.10	706.8	699.8

Table 4-3 – Bathymetric Surveying in the Former Plainwell Impoundment

Transect	Location ID	Easting (ft, NAD 1983)	Northing (ft, NAD 1983)	Water Surface Elevation (ft , NGVD 1929)	Sediment Elevation (ft , NGVD 1929)
T4	T4-11	12772540.10	350286.30	706.8	700.8
T4	T4-12	12772548.60	350291.60	706.8	700.8
T4	T4-13	12772557.10	350296.80	706.8	701.6
T4	T4-14	12772565.70	350302.00	706.8	704.8
T4	T4-15	12772571.60	350305.60	706.8	706.8
T5	T5-1	12772588.80	350018.70	707.0	706.3
T5	T5-2	12772596.00	350025.70	707.0	703.2
T5	T5-3	12772603.10	350032.70	707.0	700.5
T5	T5-4	12772610.30	350039.70	707.0	699.2
T5	T5-5	12772617.40	350046.70	707.0	698.6
T5	T5-6	12772624.50	350053.60	707.0	698.3
T5	T5-7	12772631.70	350060.60	707.0	698.6
T5	T5-8	12772638.80	350067.60	707.0	700.0
T5	T5-9	12772646.00	350074.60	707.0	700.4
T5	T5-10	12772653.10	350081.60	707.0	701.3
T5	T5-11	12772660.30	350088.60	707.0	702.2
T5	T5-12	12772667.40	350095.60	707.0	702.9
T5	T5-13	12772674.60	350102.60	707.0	703.5
T5	T5-14	12772681.70	350109.60	707.0	704.0
T5	T5-15	12772693.20	350120.80	707.0	706.8
T6	T6-1	12773142.90	349834.90	707.1	707.1
T6	T6-2	12773140.50	349845.60	707.1	704.1
T6	T6-3	12773138.10	349856.30	707.1	702.1
T6	T6-4	12773135.70	349867.10	707.1	701.1
T6	T6-5	12773133.20	349877.80	707.1	700.6
T6	T6-6	12773130.80	349888.50	707.1	700.4
T6	T6-7	12773128.40	349899.30	707.1	700.6
T6	T6-8	12773126.00	349910.00	707.1	700.7
T6	T6-9	12773123.60	349920.70	707.1	700.8
T6	T6-10	12773121.20	349931.50	707.1	700.9
T6	T6-11	12773118.80	349942.20	707.1	701.0
T6	T6-12	12773116.40	349952.90	707.1	701.2
T6	T6-13	12773114.00	349963.70	707.1	701.7
T6	T6-14	12773111.60	349974.40	707.1	701.4
T6	T6-15	12773108.30	349989.00	707.1	707.1
T7	T7-1	12773662.30	349974.30	707.1	707.1
T7	T7-2	12773656.40	349983.60	707.1	701.3
T7	T7-3	12773650.40	349992.80	707.1	700.6
T7	T7-4	12773644.50	350002.10	707.1	700.2
T7	T7-5	12773638.50	350011.40	707.1	699.8
T7	T7-6	12773632.60	350020.60	707.1	699.6
T7	T7-7	12773626.70	350029.90	707.1	699.6
T7	T7-8	12773620.70	350039.10	707.1	700.2
T7	T7-9	12773614.80	350048.40	707.1	701.2
T7	T7-10	12773608.80	350057.60	707.1	702.1

Table 4-3 – Bathymetric Surveying in the Former Plainwell Impoundment

Transect	Location ID	Easting (ft, NAD 1983)	Northing (ft, NAD 1983)	Water Surface Elevation (ft , NGVD 1929)	Sediment Elevation (ft , NGVD 1929)
T7	T7-11	12773602.90	350066.90	707.1	702.7
T7	T7-12	12773596.90	350076.10	707.1	704.6
T7	T7-13	12773591.00	350085.40	707.1	705.6
T7	T7-14	12773585.00	350094.60	707.1	706.1
T7	T7-15	12773576.40	350108.10	707.1	707.1
T8	T8-1	12774158.20	350567.80	707.2	705.2
T8	T8-2	12774150.50	350577.00	707.2	703.9
T8	T8-3	12774142.70	350586.10	707.2	702.7
T8	T8-4	12774135.00	350595.30	707.2	702.4
T8	T8-5	12774127.20	350604.40	707.2	702.5
T8	T8-6	12774119.40	350613.60	707.2	702.7
T8	T8-7	12774111.70	350622.80	707.2	702.6
T8	T8-8	12774103.90	350631.90	707.2	701.9
T8	T8-9	12774096.10	350641.10	707.2	701.2
T8	T8-10	12774088.40	350650.20	707.2	701.2
T8	T8-11	12774080.60	350659.40	707.2	701.8
T8	T8-12	12774072.90	350668.50	707.2	702.4
T8	T8-13	12774065.10	350677.70	707.2	702.2
T8	T8-14	12774057.30	350686.80	707.2	701.3
T8	T8-15	12774047.00	350699.00	707.2	705.4
T9	T9-1	12774912.90	350811.30	707.2	707.2
T9	T9-2	12774916.00	350823.90	707.2	705.7
T9	T9-3	12774919.20	350836.50	707.2	705.7
T9	T9-4	12774922.40	350849.10	707.2	702.2
T9	T9-5	12774925.50	350861.70	707.2	702.0
T9	T9-6	12774928.70	350874.30	707.2	702.2
T9	T9-7	12774931.90	350887.00	707.2	702.7
T9	T9-8	12774935.00	350899.60	707.2	702.5
T9	T9-9	12774938.20	350912.20	707.2	702.0
T9	T9-10	12774941.30	350924.80	707.2	701.6
T9	T9-11	12774944.50	350937.40	707.2	700.7
T9	T9-12	12774947.70	350950.00	707.2	701.2
T9	T9-13	12774950.80	350962.60	707.2	700.9
T9	T9-14	12774954.00	350975.20	707.2	705.2
T9	T9-15	12774957.50	350989.10	707.2	707.2
T10	T10-1	12775393.90	350657.70	707.8	707.2
T10	T10-2	12775402.70	350671.10	707.8	703.8
T10	T10-3	12775411.50	350684.40	707.8	703.8
T10	T10-4	12775420.30	350697.80	707.8	704.0
T10	T10-5	12775429.10	350711.20	707.8	705.1
T10	T10-6	12775437.90	350724.50	707.8	705.1
T10	T10-7	12775446.70	350737.90	707.8	704.8
T10	T10-8	12775455.50	350751.30	707.8	704.0
T10	T10-9	12775464.20	350764.60	707.8	704.3
T10	T10-10	12775473.00	350778.00	707.8	705.0

Table 4-3 – Bathymetric Surveying in the Former Plainwell Impoundment

Transect	Location ID	Easting (ft, NAD 1983)	Northing (ft, NAD 1983)	Water Surface Elevation (ft , NGVD 1929)	Sediment Elevation (ft , NGVD 1929)
T10	T10-11	12775481.80	350791.40	707.8	705.0
T10	T10-12	12775490.60	350804.70	707.8	704.8
T10	T10-13	12775499.40	350818.10	707.8	704.9
T10	T10-14	12775508.20	350831.50	707.8	704.3
T10	T10-15	12775519.30	350848.20	707.8	707.8

Notes:
ft - feet
NAD 1983 - North American Datum
NGVD - National Geodetic Vertical Datum

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-4 -- Post-Construction TCRA Sediment Sample Descriptions

Location ID	Sample Date	Sample ID	QC Performed	Depth Top (in)	Depth Bottom (in)	Sample Description
PCS-1-1	1/23/2008	K55482		0	2	Orange Brown Fine to Coarse Sand, Little Fine to Medium Gravel Over Dark Gray Clayey Silt, Slight Odor
PCS-1-2	1/23/2008	K55481		0	2	Brown Fine to Coarse Sand, Little Fine to Medium Gravel Over Dark Gray Silty Fine Sand, Trace Organics (Wood)
PCS-1-3	1/23/2008	K55480		0	2	Brown Fine to Medium Gravel Over Dark Gray Silty Fine Sands, Loose
PCS-2A-1	1/23/2008	K55479		0	2	Gray Brown Loose Silt, Little Fine Sand, Little Organics (Leaves, Vegetation, Twigs)
PCS-2A-2	1/23/2008	K55478		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel, Trace Organics (Wood), Loose
PCS-2A-3	1/23/2008	K55477		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel, Trace Shells, Loose
PCS-3B-1	1/23/2008	K55483		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel, Trace Organics (Twigs), Over Gray Brown Sandy Clay
PCS-3B-2	1/23/2008	K55484		0	2	Gray Brown Fine to Coarse Sand, Little/Some Fine to Coarse Gravel, Trace Silt, Loose
PCS-3B-3	1/23/2008	K55485		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Little Fine to Coarse Gravel, Trace Silt
PCS-4B-1	1/23/2008	K55486		0	2	Gray Brown Fine to Coarse Gravel and Fine to Coarse Sand, Trace Silt, Trace Shells
PCS-4B-2	1/23/2008	K55487		0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Loose
PCS-4B-3	1/23/2008	K55488		0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells
PCS-5-1	1/23/2008	K55476		0	2	Brown Very Loose Silt, Trace Fine Sand, Trace Organics (Vegetation)
PCS-5-2	1/23/2008	K55475		0	2	Brown Very Loose Silt, Trace Fine Sand, Trace Organics (Vegetation)
PCS-5-3	1/23/2008	K55474		0	2	Dark Brown Silt, Little Fine Sand, Trace Coarse Gravel
PCS-6A-1	1/23/2008	No Sediment - No Sample Collected				
PCS-6A-2	1/23/2008	K55489		0	2	Gray Brown Fine to Coarse Gravel, Little Fine to Coarse Sand, Trace Shells
PCS-6A-3	1/23/2008	K55490		0	2	Gray Brown Fine to Coarse Sand, Little/Some Fine to Coarse Gravel, Little Shells, Trace Vegetation
PCS-6B-1	1/22/2008	K55466	MS/MSD	0	2	Dark Gray Brown Silty Clay, Trace Fine to Coarse Sand, Trace Fine to Medium Gravel, Slight Odor, Trace Shells
PCS-6B-1	1/22/2008	K55467	DUP(K55466)	0	2	Dark Gray Brown Silty Clay, Trace Fine to Coarse Sand, Trace Fine to Medium Gravel, Slight Odor, Trace Shells
PCS-6B-2	1/22/2008	K55465		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel, Trace Silt

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-4 -- Post-Construction TCRA Sediment Sample Descriptions

Location ID	Sample Date	Sample ID	QC Performed	Depth Top (in)	Depth Bottom (in)	Sample Description
PCS-6B-3	1/22/2008	K55464		0	2	Dark Gray Brown Silty Fine to Coarse Sand, Trace Fine to Medium Gravel, Slight Odor
PCS-7-1	1/22/2008	No Sediment - No Sample Collected				
PCS-7-2	1/22/2008	K55463		0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells
PCS-7-3	1/22/2008	No Sediment - No Sample Collected				
PCS-8-1	1/22/2008	K55461	MS/MSD	0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells
PCS-8-1	1/22/2008	K55462	DUP(K55461)	0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells
PCS-8-2	1/22/2008	K55460		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Shells, Trace Slag, Loose
PCS-8-3	1/22/2008	K55459		0	2	Brown Fine to Coarse Sand and Shells, Loose
PCS-I1-1	1/22/2008	K55470		0	2	Gray Brown Fine to Coarse Sand, Little Fine to Coarse Gravel, Trace Shells, Loose
PCS-I1-2	1/22/2008	K55469		0	2	Gray Brown Fine to Coarse Sand, Little Fine to Medium Gravel, Little Shells, Loose
PCS-I1-3	1/22/2008	K55468		0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel, Trace Shells
PCS-I2-1	1/22/2008	K55473		0	2	Dark Brown Leaves and Loose, Watery Silt
PCS-I2-2	1/22/2008	K55472		0	2	Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel, Trace Shells, Loose
PCS-I2-3	1/22/2008	K55471		0	2	Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Coarse Gravel, Loose

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-5 -- Post-Construction TCRA Particle Size Data

	Location ID:	PCS-1-1	PCS-1-2	PCS-1-3	PCS-2A-1	PCS-2A-2	PCS-2A-3	PCS-3B-1	PCS-3B-2	PCS-3B-3	PCS-4B-1	PCS-4B-2	PCS-4B-3
	Sample ID:	K55482	K55481	K55480	K55479	K55478	K55477	K55483	K55484	K55485	K55486	K55487	K55488
	Sample Date:	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008
	Depth Interval (in):	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Soil Classification (%)													
Gravel		45.5	29.4	23.1	9.7	0.3	3.4	16.5	41.3	14.3	65.3	0.9	1.5
Coarse Sand		15.1	15.0	9.8	3.7	17.7	21.4	11.4	19.5	16.8	7.0	2.3	6.4
Medium Sand		16.6	22.9	9.2	4.3	38.9	37.2	50.0	30.5	43.0	14.6	76.0	68.5
Fine Sand		6.8	21.7	39.9	38.3	38.1	32.9	15.4	7.6	23.5	6.3	18.7	21.2
Silt		8.2	9.0	17.2	40.2	4.3	4.8	4.6	0.8	1.5	5.3	1.7	1.7
Clay		7.8	1.9	0.9	3.7	0.8	0.2	2.1	0.3	0.9	1.5	0.3	0.8
Particle Size (% finer)													
Sieve Size (mm)	75000	100	100	100	100	100	100	100	100	100	100	100	100
	50000	100	100	100	100	100	100	100	100	100	100	100	100
	37500	100	100	100	100	100	100	100	100	100	100	100	100
	25000	100	100	100	100	100	100	100	100	100	100	100	100
	19000	100	100	88.3	100	100	100	100	100	100	62.8	100	100
	9500	72.1	88.9	84.7	92.6	100	99.7	89.3	74.4	92.7	47.6	100	100
	4750	54.5	70.6	76.9	90.3	99.7	96.6	83.5	58.7	85.7	34.7	99.1	98.5
	2000	39.4	55.5	67.2	86.6	82.0	75.1	72.1	39.2	68.9	27.7	96.7	92.1
	850	28.8	43.3	63.1	85.0	50.9	51.1	45.0	19.2	45.3	20.4	69.6	62.4
	425	22.8	32.7	58.0	82.2	43.2	37.9	22.1	8.7	25.8	13.1	20.7	23.6
	250	20.0	25.2	47.0	78.6	36.1	26.5	13.1	4.4	15.6	9.4	6.1	9.6
	180	17.5	18.3	32.8	70.2	16.5	11.9	8.9	2.0	7.3	7.6	2.3	3.7
	150	17.2	15.7	28.6	65.9	10.6	8.8	8.2	1.6	5.5	7.4	2.2	3.0
	75	16.0	10.9	18.0	43.9	5.1	5.0	6.7	1.0	2.4	6.8	2.0	2.4
Hydrometer (mm)	32 - 38	12.7	4.1	3.7	11.1	0.8	0.7	4.4	0.7	2.0	3.1	0.9	0.8
	21 - 24	11.0	4.1	3.1	9.6	0.8	0.7	4.4	0.7	1.4	2.7	0.9	0.8
	12.3 - 13.8	10.2	3.0	2.0	6.6	0.8	0.7	3.2	0.7	0.9	2.3	0.3	0.8
	8.7 - 9.9	9.4	2.4	2.0	5.2	0.8	0.7	2.6	0.3	0.9	1.9	0.3	0.8
	6.4 - 7.0	7.8	1.9	0.9	3.7	0.8	0.2	2.1	0.3	0.9	1.5	0.3	0.8
	3.2 - 3.5	6.1	1.3	0.8	2.1	0.8	0.2	2.0	0.2	0.3	0.6	0.3	0.8
	1.4	3.7	1.3	0.8	2.1	0.8	0.2	0.9	0.2	0.3	0.2	0.3	0.3

See Note on Page 3.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-5 -- Post-Construction TCRA Particle Size Data

	Location ID:	PCS-5-1	PCS-5-2	PCS-5-3	PCS-6A-2	PCS-6A-3	PCS-6B-1	PCS-6B-1	PCS-6B-2	PCS-6B-3	PCS-7-2	PCS-8-1	PCS-8-1
	Sample ID:	K55476	K55475	K55474	K55489	K55490	K55466	K55467	K55465	K55464	K55463	K55461	K55462
	Sample Date:	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/23/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008
	Depth Interval (in):	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Soil Classification (%)													
Gravel		0.0	0.4	0.2	88.8	66.6	12.3	12.3	30.3	37.4	NA	0.1	0.3
Coarse Sand		0.1	0.3	1.1	2.0	11.9	5.5	2.9	14.4	10.2	NA	0.8	1.3
Medium Sand		2.4	2.9	8.1	2.7	6.9	15.4	17.8	27.3	17.2	NA	69.0	69.5
Fine Sand		9.3	36.5	56.9	3.7	8.8	17.5	18.4	18.8	11.6	NA	28.5	28.0
Silt		72.0	51.1	21.9	2.3	5.7	31.4	29.0	7.7	20.7	NA	0.7	0.6
Clay		16.2	8.9	11.9	0.6	0.2	17.9	19.6	1.5	2.8	NA	1.0	0.3
Particle Size (% finer)													
Sieve Size (mm)	75000	100	100	100	100	100	100	100	100	100	NA	100	100
	50000	100	100	100	100	100	100	100	100	100	NA	100	100
	37500	100	100	100	100	100	100	100	100	100	NA	100	100
	25000	100	100	100	100	100	100	100	100	100	NA	100	100
	19000	100	100	100	40.8	90.5	100	100	83.4	92.6	NA	100	100
	9500	100	100	100	15.6	54.2	91.3	92.8	81.9	73.1	NA	100	100
	4750	100	99.6	99.8	11.2	33.4	87.7	87.7	69.7	62.6	NA	99.9	99.7
	2000	99.9	99.3	98.7	9.3	21.5	82.2	84.8	55.3	52.3	NA	99.2	98.5
	850	98.1	97.6	95.1	8.1	17.7	77.7	78.7	43.0	45.3	NA	87.4	86.3
	425	97.5	96.4	90.6	6.6	14.6	66.8	67.1	28.0	35.1	NA	30.2	28.9
	250	96.8	92.8	79.4	5.6	11.2	57.6	57.3	17.1	27.8	NA	6.6	5.5
	180	94.9	82.6	57.0	4.0	7.2	52.2	51.5	12.1	24.9	NA	2.5	1.6
	150	94.2	77.9	50.8	3.7	6.6	51.6	50.9	11.2	24.6	NA	2.1	1.3
	75	88.2	59.9	33.8	2.9	5.8	49.3	48.7	9.2	23.5	NA	1.6	0.9
Hydrometer (mm)	32 - 38	50.8	25.3	29.4	0.6	0.6	38.2	39.9	4.3	7.0	NA	1.0	0.9
	21 - 24	37.8	21.2	24.5	0.6	0.6	33.6	37.3	3.7	5.9	NA	1.0	0.9
	12.3 - 13.8	27.0	15.8	18.2	0.6	0.6	27.4	30.5	2.1	4.4	NA	1.0	0.9
	8.7 - 9.9	20.5	11.7	14.5	0.6	0.2	22.7	23.7	2.1	3.9	NA	1.0	0.9
	6.4 - 7.0	16.2	8.9	11.9	0.6	0.2	17.9	19.6	1.5	2.8	NA	1.0	0.3
	3.2 - 3.5	11.7	4.8	8.1	0.2	0.2	11.7	14.1	0.8	2.3	NA	0.3	0.3
	1.4	7.4	2.0	4.4	0.2	0.2	6.9	10.0	0.8	1.8	NA	0.3	0.3

See Note on Page 3.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 1 SRI Phase 1 Data Report

Table 4-5 -- Post-Construction TCRA Particle Size Data

	Location ID:	PCS-8-2	PCS-8-3	PCS-I1-1	PCS-I1-2	PCS-I1-3	PCS-I2-1	PCS-I2-2	PCS-I2-3
	Sample ID:	K55460	K55459	K55470	K55469	K55468	K55473	K55472	K55471
	Sample Date:	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008	1/22/2008
	Depth Interval (in):	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Soil Classification (%)									
Gravel		4.0	64.1	40.7	42.1	13.3	40.8	35.1	43.9
Coarse Sand		15.3	19.1	27.3	23.1	13.6	3.6	7.0	8.1
Medium Sand		46.7	4.0	17.4	18.2	41.3	8.1	21.2	16.9
Fine Sand		32.5	2.1	10.9	14.5	29.7	26.8	30.6	25.5
Silt		0.7	10.0	3.5	1.7	1.7	14.4	4.9	5.3
Clay		0.8	0.7	0.2	0.3	0.3	6.3	1.1	0.3
Particle Size (% finer)									
Sieve Size (mm)	75000	100	100	100	100	100	100	100	100
	50000	100	100	100	100	100	100	100	100
	37500	100	100	100	100	100	100	100	100
	25000	100	100	100	100	100	100	100	100
	19000	100	100	96.4	100	100	100	91.8	100
	9500	100	66.8	86.1	85.4	95.4	64.5	76.0	64.8
	4750	96.0	35.9	59.3	57.9	86.7	59.2	64.9	56.1
	2000	80.7	16.8	32.0	34.8	73.0	55.6	57.9	48.0
	850	60.1	13.5	22.2	24.9	59.2	52.1	51.0	40.9
	425	34.0	12.8	14.6	16.5	31.7	47.5	36.6	31.1
	250	8.5	12.2	7.4	6.8	7.2	43.5	19.1	19.0
	180	2.5	11.1	4.1	2.4	2.1	35.8	10.3	10.4
	150	2.0	11.0	3.9	2.2	2.0	33.0	8.6	8.5
	75	1.5	10.7	3.7	2.0	2.0	20.7	6.0	5.6
Hydrometer (mm)	32 - 38	0.8	1.5	0.7	0.8	0.8	17.1	2.5	1.7
	21 - 24	0.8	1.5	0.7	0.8	0.8	13.6	2.0	1.2
	12.3 - 13.8	0.8	1.1	0.7	0.8	0.8	10.0	2.0	1.2
	8.7 - 9.9	0.8	1.1	0.2	0.3	0.8	8.2	1.6	0.8
	6.4 - 7.0	0.8	0.7	0.2	0.3	0.3	6.3	1.1	0.3
	3.2 - 3.5	0.3	0.6	0.2	0.3	0.2	2.5	0.6	0.2
	1.4	0.2	0.6	0.2	0.2	0.2	2.5	0.2	0.2

Note:
NA - Sample not analyzed.

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
SRI Phase I Data Report

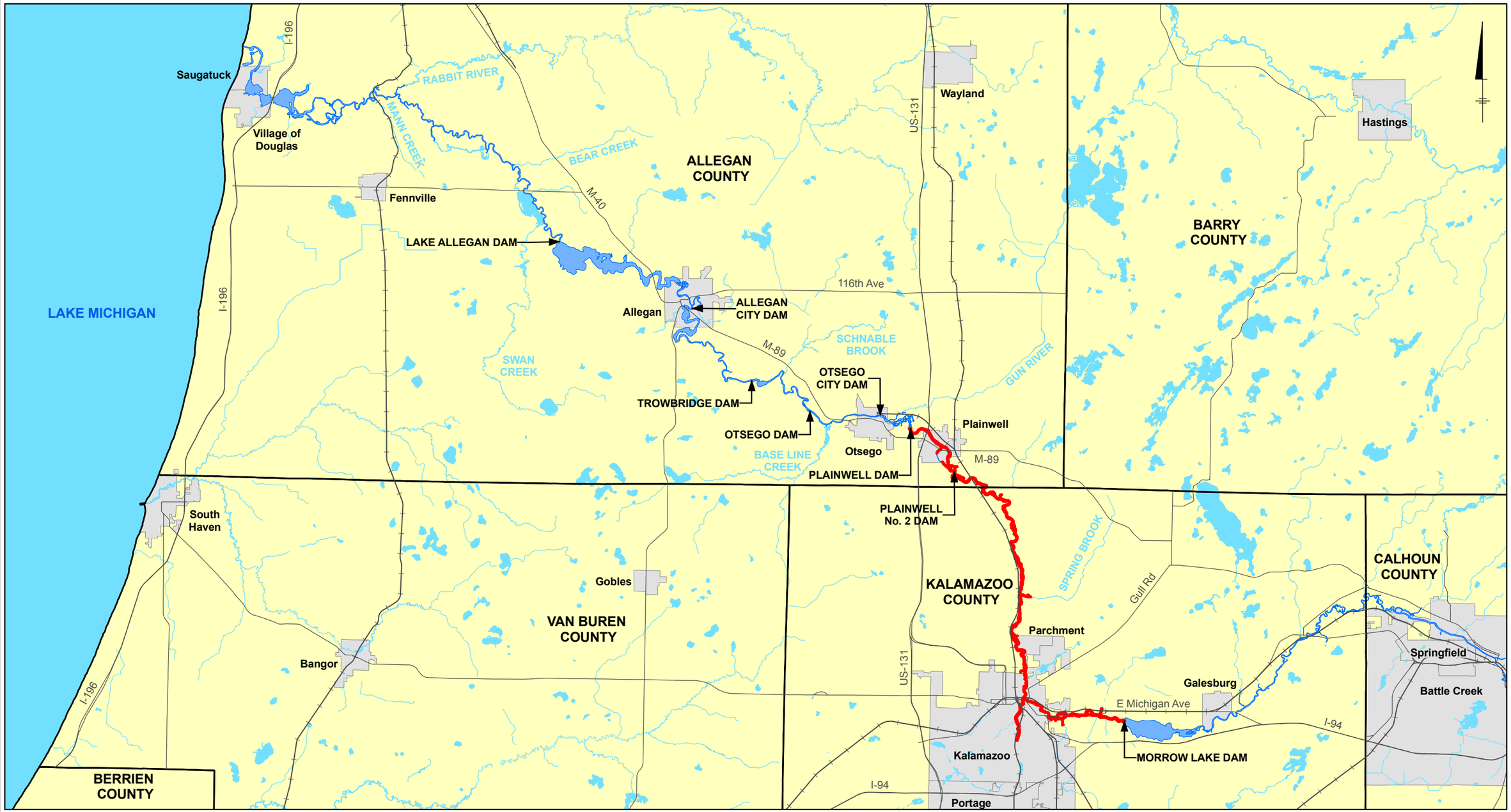
Table 4-6 -- Post-Construction TCRA Sediment Sample Analytical Results

Location ID	Sample Date	Sample ID	Depth Top (in)	Depth Bottom (in)	PCB Concentration (mg/kg)								TOC (mg/kg)	Percent Solids
					Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCB		
PCS-1-1	1/23/2008	K55482	0	2	2.8 U	2.8 U	2.8 U	43	2.8 U	4.7	2.8 U	48	41600	53
PCS-1-2	1/23/2008	K55481	0	2	0.42 U	0.42 U	0.42 U	4.1	0.42 U	0.34 J	0.42 U	4.4 J	21300	60
PCS-1-3	1/23/2008	K55480	0	2	0.19 U	0.19 U	0.19 U	2.1	0.19 U	0.76	0.19 U	2.9	40600	53
PCS-2A-1	1/23/2008	K55479	0	2	0.56 U	0.56 U	0.56 U	5.5	0.56 U	1.1	0.56 U	6.6	150000	18
PCS-2A-2	1/23/2008	K55478	0	2	0.064 U	0.064 U	0.064 U	0.15	0.062 J	0.047 J	0.064 U	0.26 J	5310	78
PCS-2A-3	1/23/2008	K55477	0	2	0.065 U	0.065 U	0.065 U	0.21	0.065 U	0.042 J	0.065 U	0.25 J	1540	77
PCS-3B-1	1/23/2008	K55483	0	2	0.079 U	0.079 U	0.079 U	0.45	0.89	0.96	0.10	2.4	11000	63
PCS-3B-2	1/23/2008	K55484	0	2	0.064 U	0.064 U	0.064 U	0.11	0.20	0.11	0.064 U	0.42	8420	78
PCS-3B-3	1/23/2008	K55485	0	2	0.072 U	0.072 U	0.072 U	0.061 J	0.074	0.084	0.072 U	0.22 J	14600	70
PCS-4B-1	1/23/2008	K55486	0	2	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	55500	41
PCS-4B-2	1/23/2008	K55487	0	2	0.064 U	0.064 U	0.064 U	0.062 J	0.088	0.055 J	0.064 U	0.21 J	30900	78
PCS-4B-3	1/23/2008	K55488	0	2	0.064 U	0.064 U	0.064 U	0.14	0.083	0.065	0.064 U	0.29	30800	78
PCS-5-1	1/23/2008	K55476	0	2	0.18 U	0.18 U	0.18 U	0.70	0.25	0.48	0.097 J	1.5 J	70700	27
PCS-5-2	1/23/2008	K55475	0	2	0.14 U	0.14 U	0.14 U	0.43	0.22	0.26	0.071 J	0.98 J	56000	37
PCS-5-3	1/23/2008	K55474	0	2	0.093 U	0.093 U	0.093 U	0.15	0.093 U	0.093 U	0.093 U	0.15	29300	54
PCS-6A-1	1/23/2008	No Sediment - No Sample Collected												
PCS-6A-2	1/23/2008	K55489	0	2	0.093 U	0.093 U	0.093 U	0.093 U	0.055 J	0.093 U	0.093 U	0.055 J	74300	54
PCS-6A-3	1/23/2008	K55490	0	2	0.063 U	0.063 U	0.063 U	0.063 U	0.065	0.063 U	0.063 U	0.065	18900	81
PCS-6B-1	1/22/2008	K55466	0	2	0.13 U	0.13 U	0.13 U	0.13 U	0.46	0.077 J	0.13 U	0.54 J	67600	37
PCS-6B-1	1/22/2008	K55467	0	2	0.13 U	0.13 U	0.13 U	0.13 U	0.076 J	0.13 U	0.13 U	0.076 J	55000	38
PCS-6B-2	1/22/2008	K55465	0	2	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.18	0.098 U	0.18	22400	51
PCS-6B-3	1/22/2008	K55464	0	2	0.084 U	0.084 U	0.084 U	0.084 U	0.049 J	0.084 U	0.084 U	0.049 J	30600	59
PCS-7-1	1/22/2008	No Sediment - No Sample Collected												
PCS-7-2	1/22/2008	K55463	0	2	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	814	78
PCS-7-3	1/22/2008	No Sediment - No Sample Collected												
PCS-8-1	1/22/2008	K55461	0	2	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	6870	83
PCS-8-1	1/22/2008	K55462	0	2	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	2550	83
PCS-8-2	1/22/2008	K55460	0	2	0.062 U	0.062 U	0.062 U	0.062 U	0.035 J	0.062 U	0.062 U	0.035 J	1100	80
PCS-8-3	1/22/2008	K55459	0	2	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U	2370	88
PCS-I1-1	1/22/2008	K55470	0	2	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	2350	93
PCS-I1-2	1/22/2008	K55469	0	2	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U	15800	79
PCS-I1-3	1/22/2008	K55468	0	2	0.060 U	0.060 U	0.060 U	0.060 U	0.032 J	0.060 U	0.060 U	0.032 J	5010	83
PCS-I2-1	1/22/2008	K55473	0	2	0.17 U	0.17 U	0.17 U	0.22	0.13 J	0.18	0.17 U	0.53 J	127000	29
PCS-I2-2	1/22/2008	K55472	0	2	0.069 U	0.069 U	0.069 U	0.069 U	0.23	0.051 J	0.069 U	0.28 J	18800	73
PCS-I2-3	1/22/2008	K55471	0	2	0.062 U	0.062 U	0.062 U	0.052 J	0.039 J	0.033 J	0.062 U	0.12 J	9540	80

Notes:
J - The compound was positively identified; however, the associated numerical value is an estimated concentration only
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit

ARCADIS

Figures



LEGEND:

- ROAD
- RAILROAD
- AREA 1 (MORROW DAM TO PLAINWELL DAM)
- KALAMAZOO RIVER/PORTAGE CREEK
- CREEKS/RIVERS/STREAMS/PONDS/LAKES
- INCORPORATED AREA
- COUNTY BOUNDARY

0 4 8 Miles

GRAPHIC SCALE

NOTES:

1. KALAMAZOO RIVER SHORELINE APPROXIMATED FROM AERIAL PHOTOGRAPHY COLLECTED IN 1999.
2. BASEMAPPING PROVIDED BY THE MICHIGAN CENTER FOR GEOGRAPHIC INFORMATION.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SITE LOCATION MAP

ARCADIS

FIGURE
1-1

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Site Location Map.mxd - 4/9/2008 @ 9:24:08 AM

LEGEND:

- SOIL SAMPLING LOCATION

SEDIMENT SAMPLING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 350 700 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.
3. NO MATERIAL CLASSIFICATION EXISTS FOR TOP OF BANK SOIL SAMPLE LOCATIONS.

KALAMAZOO RIVER STUDY GROUP
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KALAMAZOO RIVER SUPERFUND SITE

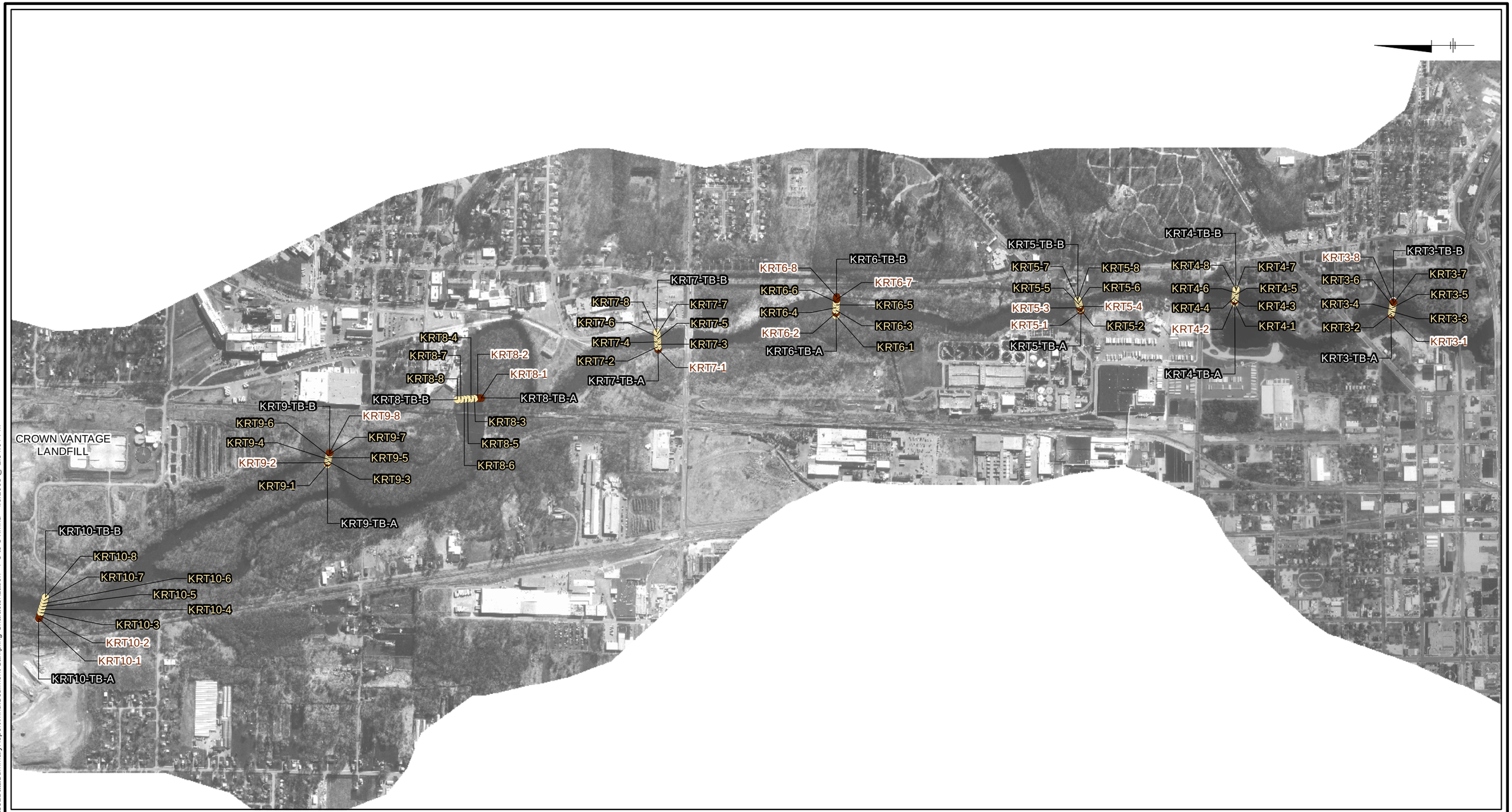
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - FORMER GEORGIA-PACIFIC MILL LAGOONS TO PORTAGE CREEK

ARCADIS

FIGURE
3-1

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - GP Mill to PC.mxd - 4/9/2008 @ 9:25:43 AM



LEGEND:

- SOIL SAMPLING LOCATION

SEDIMENT SAMPLING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 1,000 2,000 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.
3. NO MATERIAL CLASSIFICATION EXISTS FOR TOP OF BANK SOIL SAMPLE LOCATIONS.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - PORTAGE CREEK TO CROWN VANTAGE LANDFILL

ARCADIS

FIGURE 3-2

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - PC to CV.mxd - 4/9/2008 @ 1:34:04 PM

LEGEND:

- SOIL SAMPLING LOCATION

SEDIMENT SAMPLING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 500 1,000 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.
3. NO MATERIAL CLASSIFICATION EXISTS FOR TOP OF BANK SOIL SAMPLE LOCATIONS.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - UPSTREAM OF PLAINWELL NO. 2 DAM TO MILL RACE CONFLUENCE

ARCADIS

FIGURE 3-3

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - DamNo2 to MR.mxd - 4/9/2008 @ 9:30:50 AM

LEGEND:

SURFACE SEDIMENT LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 350 700 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURFICIAL SEDIMENT FOCUSED SAMPLING CHARACTERIZATION - FORMER GEORGIA-PACIFIC MILL LAGOONS TO PORTAGE CREEK

ARCADIS

FIGURE
3-4

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Surface Sediment Sampling Characterization - GP Mill to PC.mxd - 4/9/2008 @ 10:36:50 AM

LEGEND:

SURFACE SEDIMENT LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 1,000 2,000 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURFICIAL SEDIMENT FOCUSED SAMPLING CHARACTERIZATION - PORTAGE CREEK TO CROWN VANTAGE LANDFILL

ARCADIS

FIGURE
3-5

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Surface Sediment Sampling Characterization - PC to CV.mxd - 4/9/2008 @ 1:39:44 PM

LEGEND:

SURFACE SEDIMENT LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 700 1,400 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURFICIAL SEDIMENT FOCUSED SAMPLING CHARACTERIZATION - UPSTREAM OF PLAINWELL NO. 2 DAM TO MILL RACE CONFLUENCE

ARCADIS

FIGURE 3-6

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Surface Sediment Sampling Characterization - DamNo2 to MR.mxd - 4/9/2008 @ 9:44:47 AM

LEGEND:

- SURFACE SEDIMENT LOCATION - NON-DETECT

SURFACE SEDIMENT LOCATION
TOTAL PCB RESULTS (mg/kg):

- 0 - 1
- 1 - 5
- > 5

0 350 700 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURFICIAL SEDIMENT FOCUSED
SAMPLING PCB RESULTS - FORMER GEORGIA-PACIFIC MILL LAGOONS TO PORTAGE CREEK

ARCADIS

FIGURE
3-7

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Surface Sediment PCB Results - GP Mill to PC.mxd - 4/9/2008 @ 9:45:32 AM

LEGEND:

- SURFACE SEDIMENT LOCATION - NON-DETECT

SURFACE SEDIMENT LOCATION
TOTAL PCB RESULTS (mg/kg):

- 0 - 1
- 1 - 5
- > 5

0 1,000 2,000 Feet
GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURFICIAL SEDIMENT FOCUSED SAMPLING PCB RESULTS - PORTAGE CREEK TO CROWN VANTAGE LANDFILL

ARCADIS

FIGURE
3-8

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Surface Sediment PCB Results - PC to CV.mxd - 4/9/2008 @ 1:40:18 PM

LEGEND:

- SURFACE SEDIMENT LOCATION - NON-DETECT

SURFACE SEDIMENT LOCATION
TOTAL PCB RESULTS (mg/kg):

- 0 - 1
- 1 - 5
- > 5

0 700 1,400 Feet
GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

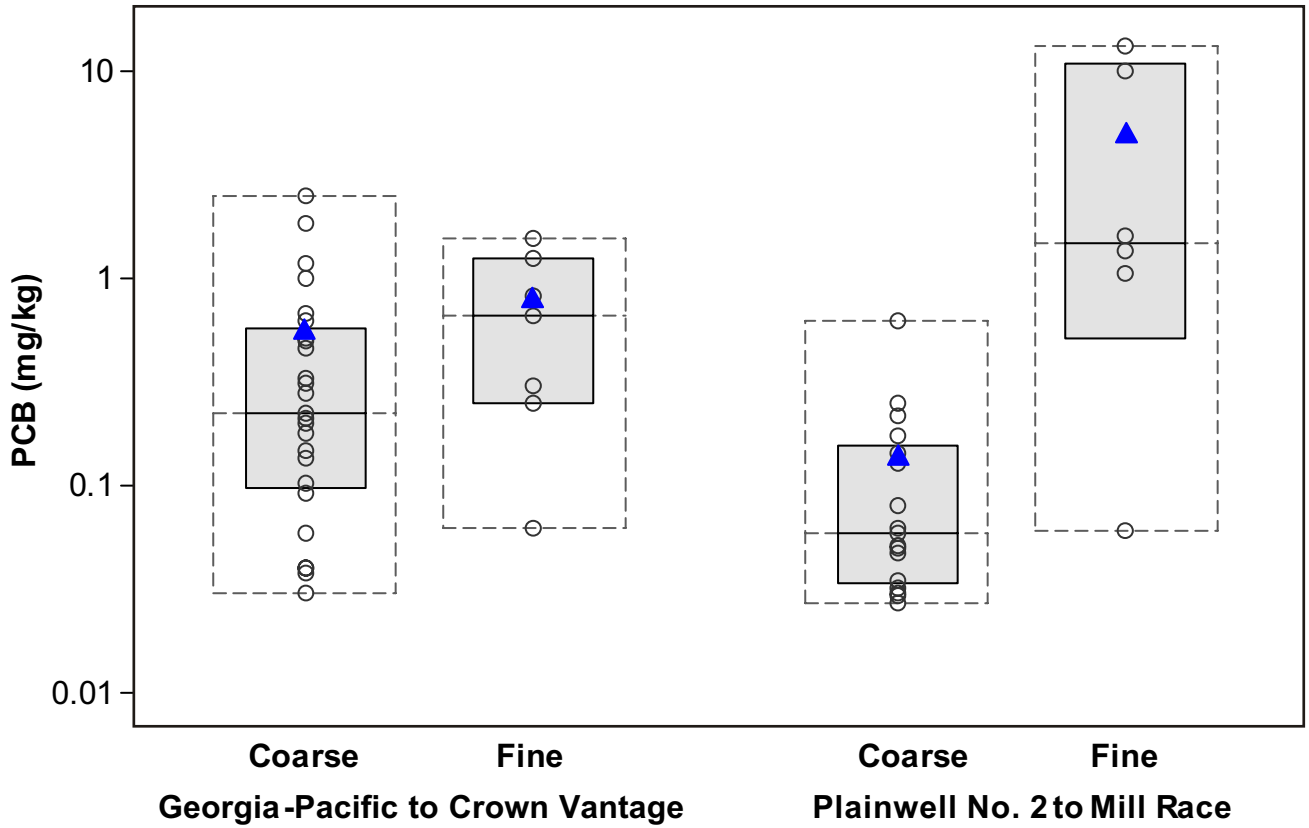
SURFICIAL SEDIMENT FOCUSED SAMPLING
PCB RESULTS - UPSTREAM OF PLAINWELL
NO. 2 DAM TO MILL RACE CONFLUENCE

ARCADIS

FIGURE
3-9

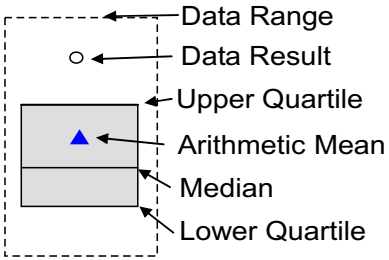
SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Surface Sediment PCB Results - DamNo2 to MR.mxd - 4/9/2008 @ 9:47:56 AM

02/12/08 SYR-D85-DJH
B0064539/0000/00500/CDR/64539G01.CDR



Note: PCB data plotted on log scale.

LEGEND:



NOTES:

1. Duplicate values were averaged.
2. Values reported as not detected were counted as ½ the detection limit.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PCB CONCENTRATION IN SURFACE SEDIMENT BY SEDIMENT TYPE

ARCADIS

FIGURE
3-10

LEGEND:

RECONNAISSANCE LOCATION

0 350 700 Feet

GRAPHIC SCALE

NOTE:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.

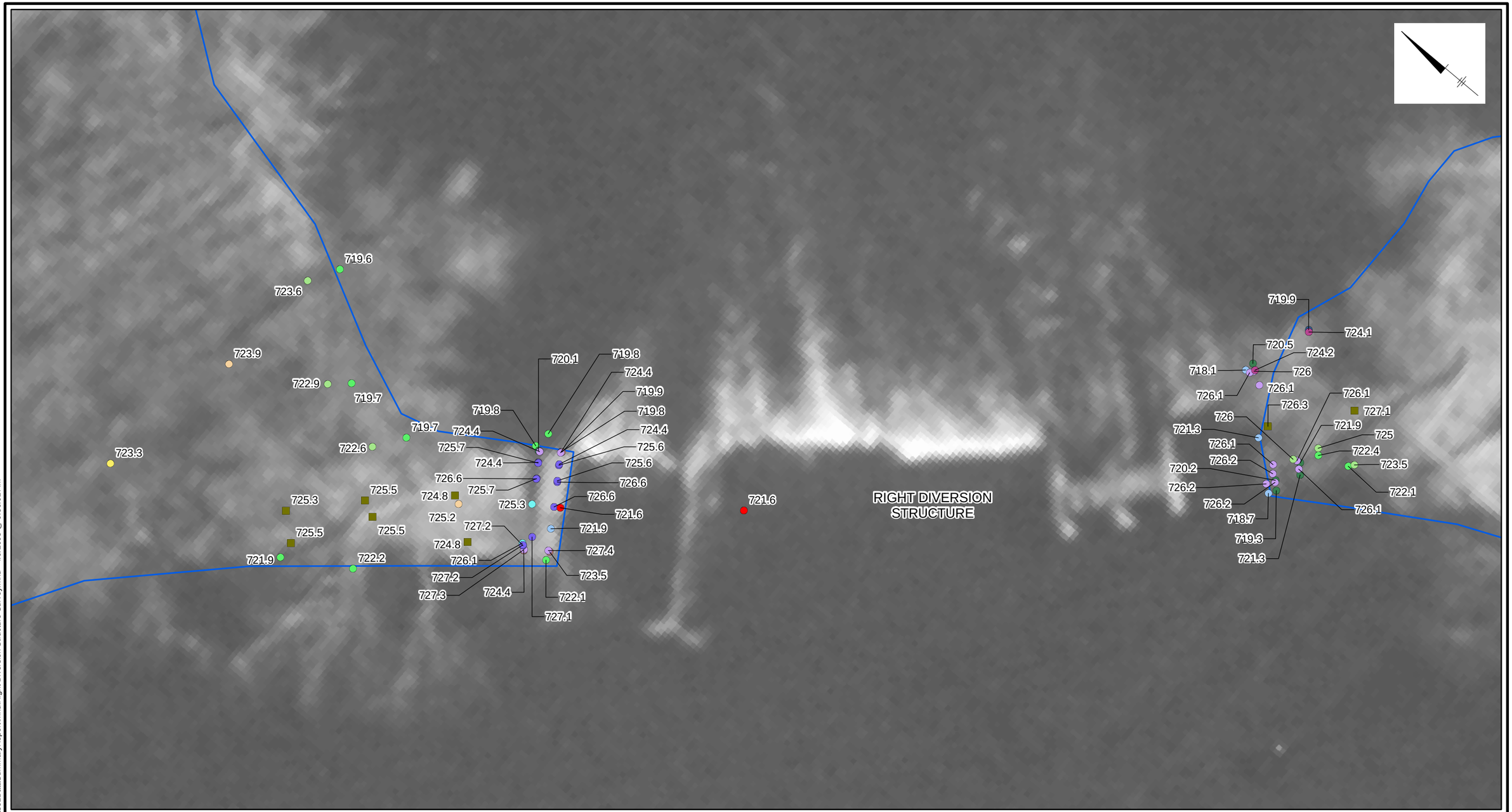
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

RECONNAISSANCE AREA
NEAR PLAINWELL NO. 2 DAM

ARCADIS

FIGURE
3-11

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Historic Inundation Area - Plainwell No 2 Dam.mxd - 4/11/2008 @ 10:17:41 AM



LEGEND:

SHORELINE

SURVEY POINT:

- BOTTOM BANK
- BOTTOM BANK/EDGE OF WATER/TOP OF SEDIMENT
- GROUND
- HEADWALL BOTTOM
- HEADWALL BOTTOM/EDGE OF WATER
- HEADWALL BOTTOM/EDGE OF WATER/TOP OF SEDIMENT
- HEADWALL CORNER TOP
- HEADWALL TOP
- HEADWALL TOP OF BANK
- SLUICE TOP
- TOP OF BANK
- TOP OF BANK/EDGE OF WATER
- WWALL BOTTOM
- WWALL TOP

NOTES:

1. SHORELINE APPROXIMATED FROM AERIAL PHOTOGRAPHY COLLECTED IN 1999.
2. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC. KALAMAZOO RIVER FLOWN 4/24/99.

0 20 40 Feet

GRAPHIC SCALE

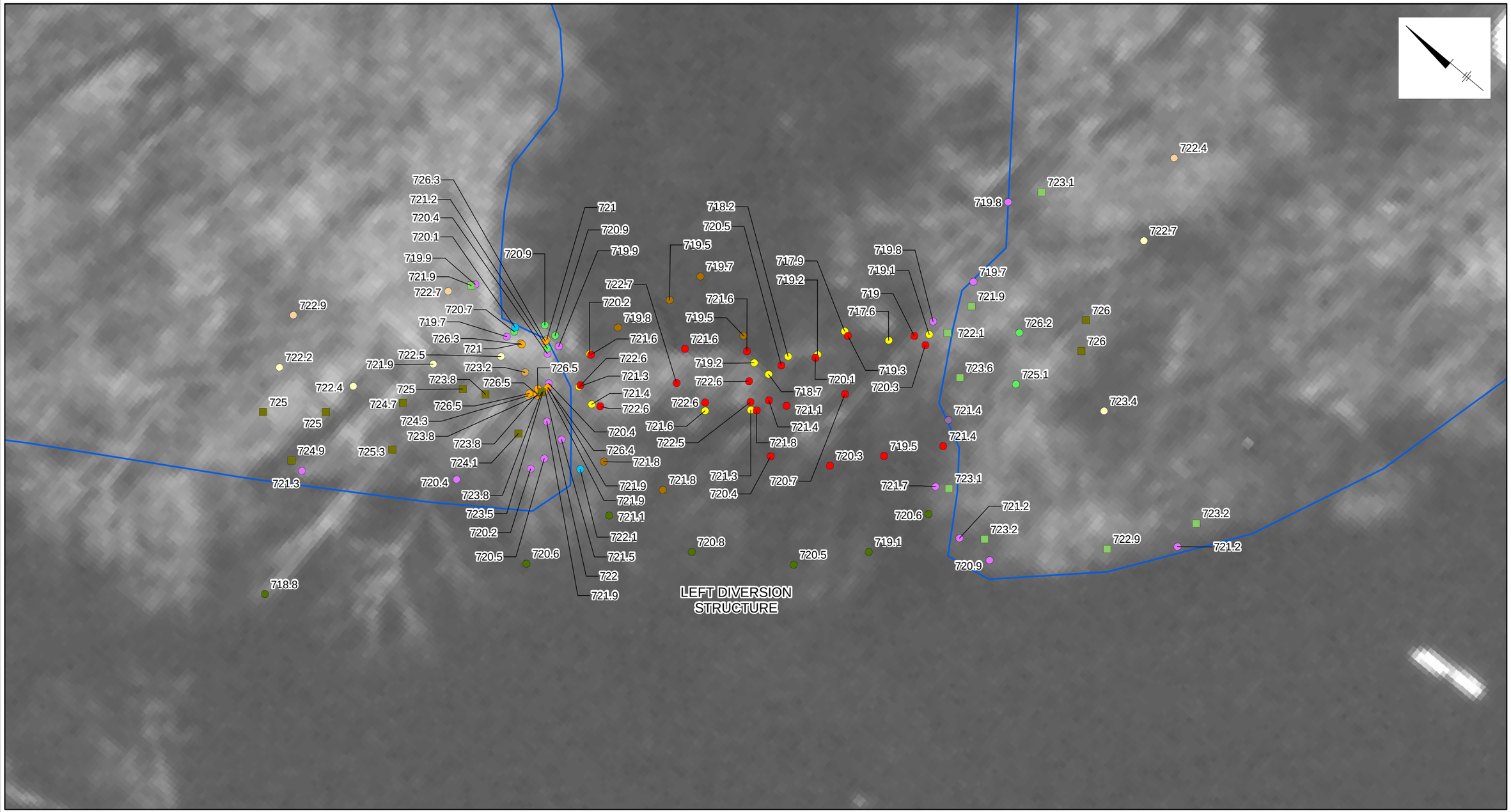
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURVEY LOCATIONS AT RIGHT DIVERSION STRUCTURE OF PLAINWELL NO. 2 DAM

ARCADIS

FIGURE 3-12

SYR-85 MTK KEW
KRSG (64524.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Right Diversion Structure Survey.mxd - 4/9/2008 @ 9:56:01 AM



LEGEND:

- SHORELINE

SURVEY POINT:

- BOTTOM BANK
- BOTTOM BANK/EDGE OF WATER/CREST TOP
- BOTTOM BANK/EDGE OF WATER/TOP OF SEDIMENT
- CONCRETE TOP
- GROUND
- HEADWALL REMAINS BOTTOM
- HEADWALL REMAINS TOP
- SEDIMENT
- SLUICE BOTTOM
- SLUICE TOP
- TOP OF BANK
- TOP OF BANK/EDGE OF WATER
- TOP OF SEDIMENT
- WATER ELEVATION

NOTES:

1. SHORELINE APPROXIMATED FROM AERIAL PHOTOGRAPHY COLLECTED IN 1999.
2. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC. KALAMAZOO RIVER FLOWN 4/24/99.

0 20 40 Feet

GRAPHIC SCALE

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

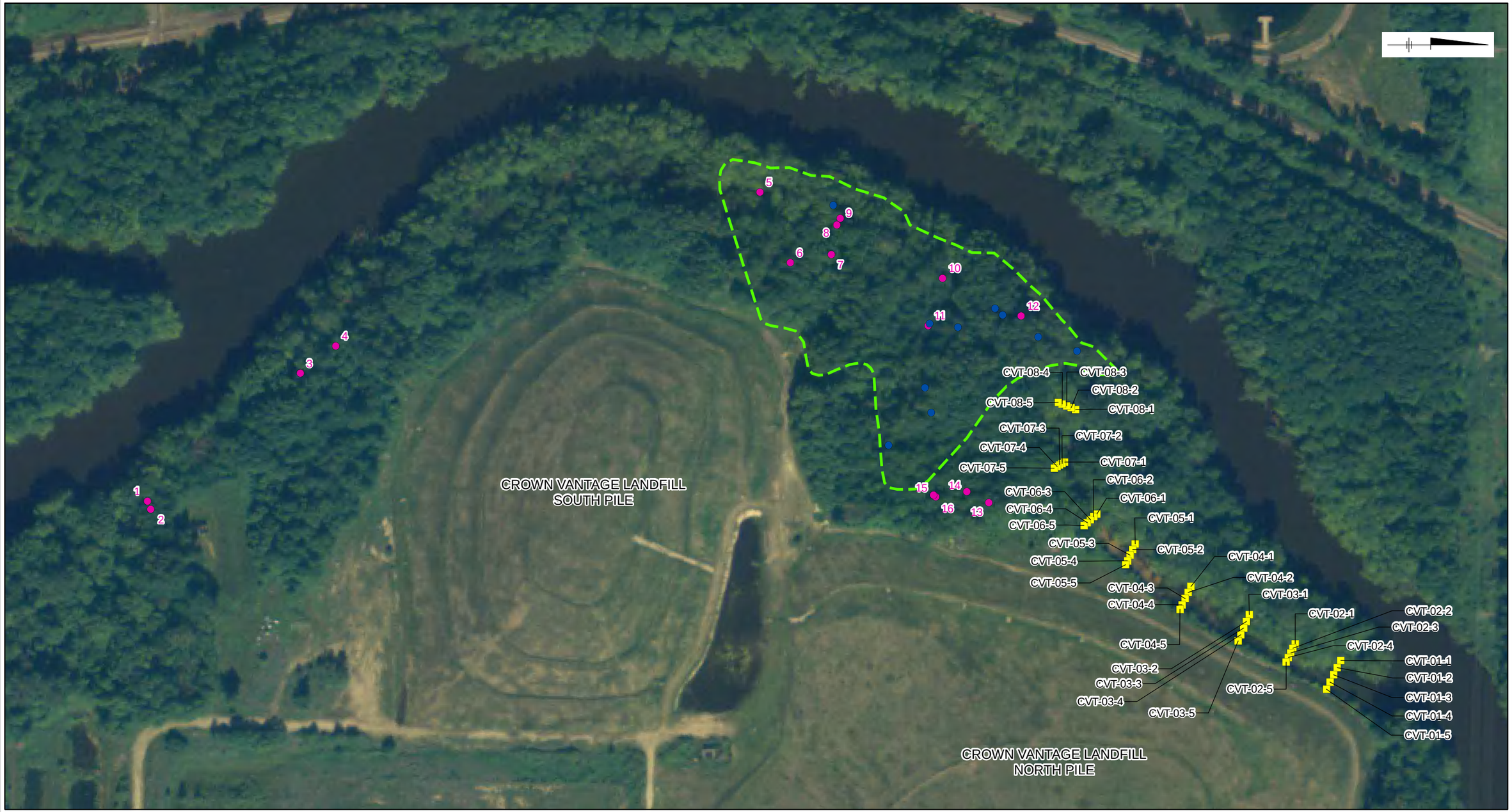
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SURVEY LOCATIONS AT LEFT DIVERSION STRUCTURE OF PLAINWELL NO. 2 DAM

ARCADIS

FIGURE
3-13

SYR-85 MTK KEW
KRSG (64524.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Left Diversion Structure Survey.mxd - 4/9/2008 @ 9:56:25 AM



LEGEND:

- SEDIMENT PROBING LOCATION
- ARCADIS PHOTO LOCATION
- RECONNAISSANCE LOCATION - USEPA
- APPROXIMATE AREA OF OBSERVED DEBRIS

0 200 400 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. LANDFILL COVER CONSTRUCTED IN 2002. MDEQ RESPONSIBLE FOR COVER MAINTENANCE.
3. USEPA RECONNAISSANCE INFORMATION PROVIDED TO ARCADIS BBL VIA EMAIL SEPTEMBER 12, 2007. ACTUAL RECONNAISSANCE PERFORMED IN 2004.
4. LANDFILL PROPERTY IN TRUSTEESHIP FOR TRANSFER TO STATE OF MICHIGAN.

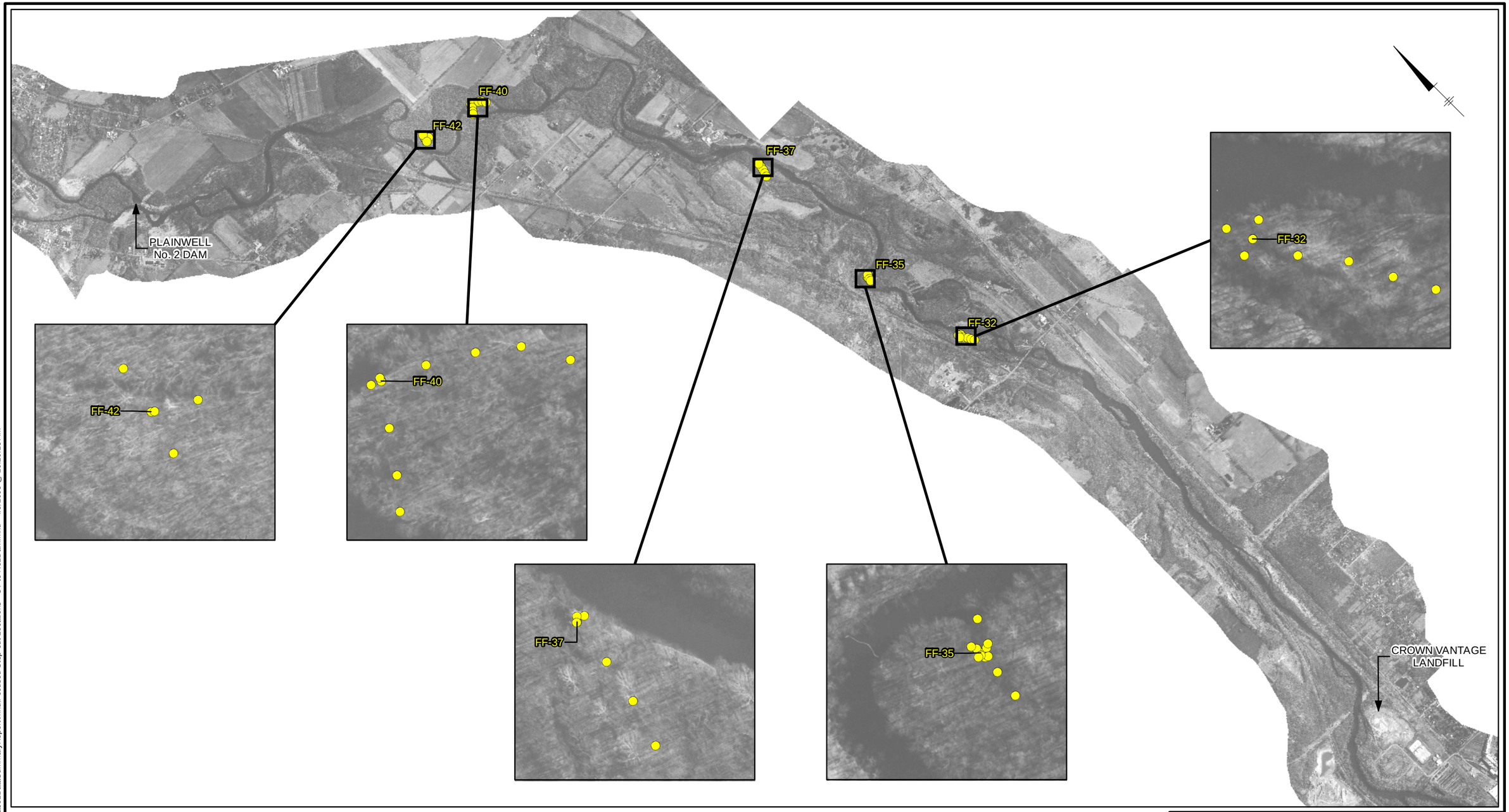
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT PROBING LOCATIONS - CROWN VANTAGE LANDFILL AREA

ARCADIS

FIGURE
3-14

SYR-85 MTK
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Probing Locations - CV.mxd - 4/9/2008 @ 1:35:00 PM



LEGEND:

FOCUSED STEP-OUT SAMPLE LOCATION - PROBING RECON COMPLETED NOVEMBER 2007

0 2,600 5,200 Feet

GRAPHIC SCALE

NOTE:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.

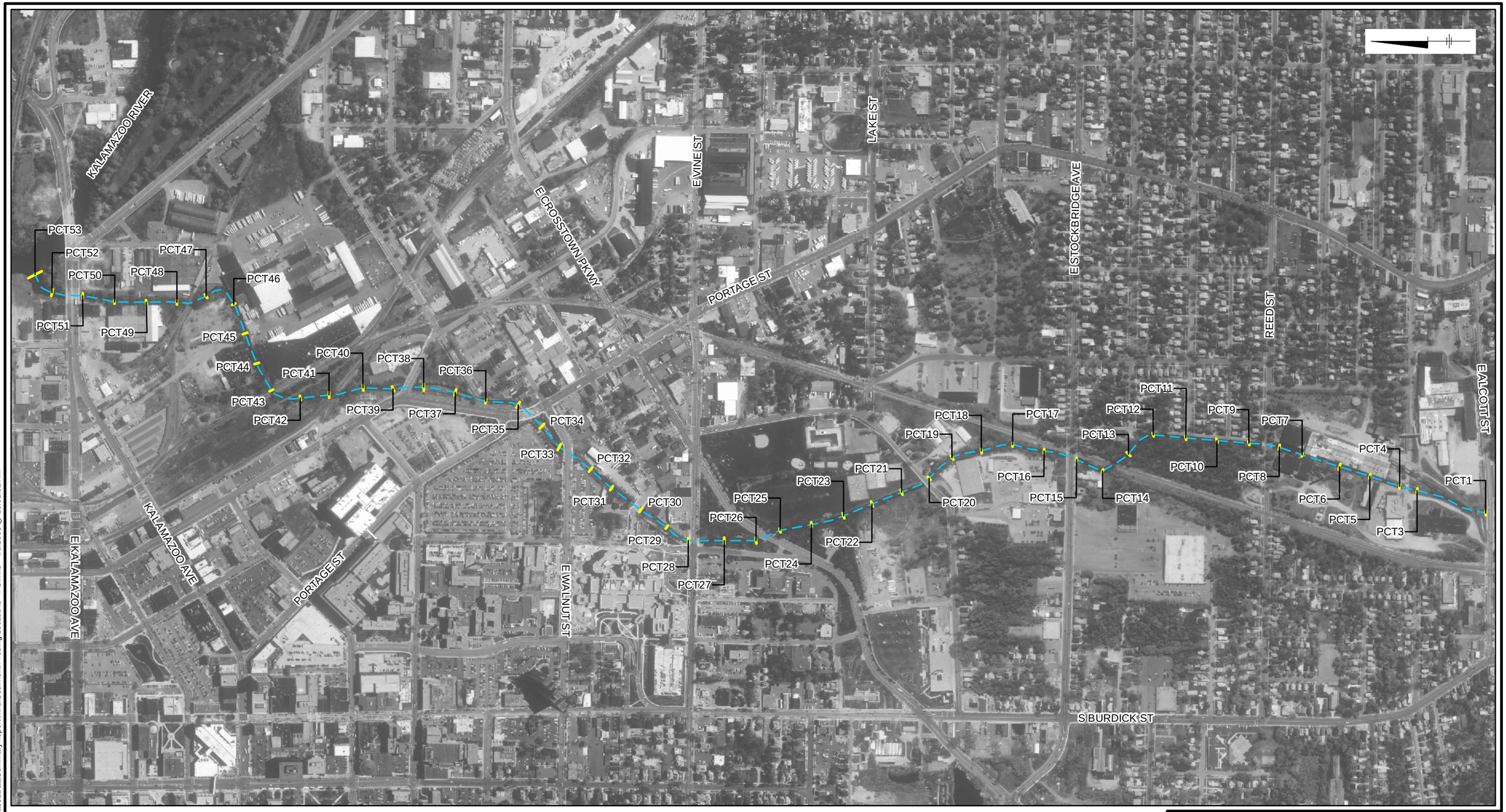
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

FOCUSED STEP-OUT SAMPLING LOCATIONS - CROWN VANTAGE LANDFILL TO UPSTREAM OF PLAINWELL NO. 2 DAM

ARCADIS

FIGURE
3-15

SYR-85 MTK
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Focused Step-out Locations - CV to No2Dam.mxd - 4/9/2008 @ 10:20:13 AM



LEGEND:

- SEDIMENT PROBING TRANSECT COMPLETED SEPTEMBER 2007
- PORTAGE CREEK CENTERLINE (APPROXIMATE)

0 600 1,200 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SEDIMENT TRANSECT PCT2 WAS NOT PROBED DUE TO ACCESS ISSUES.

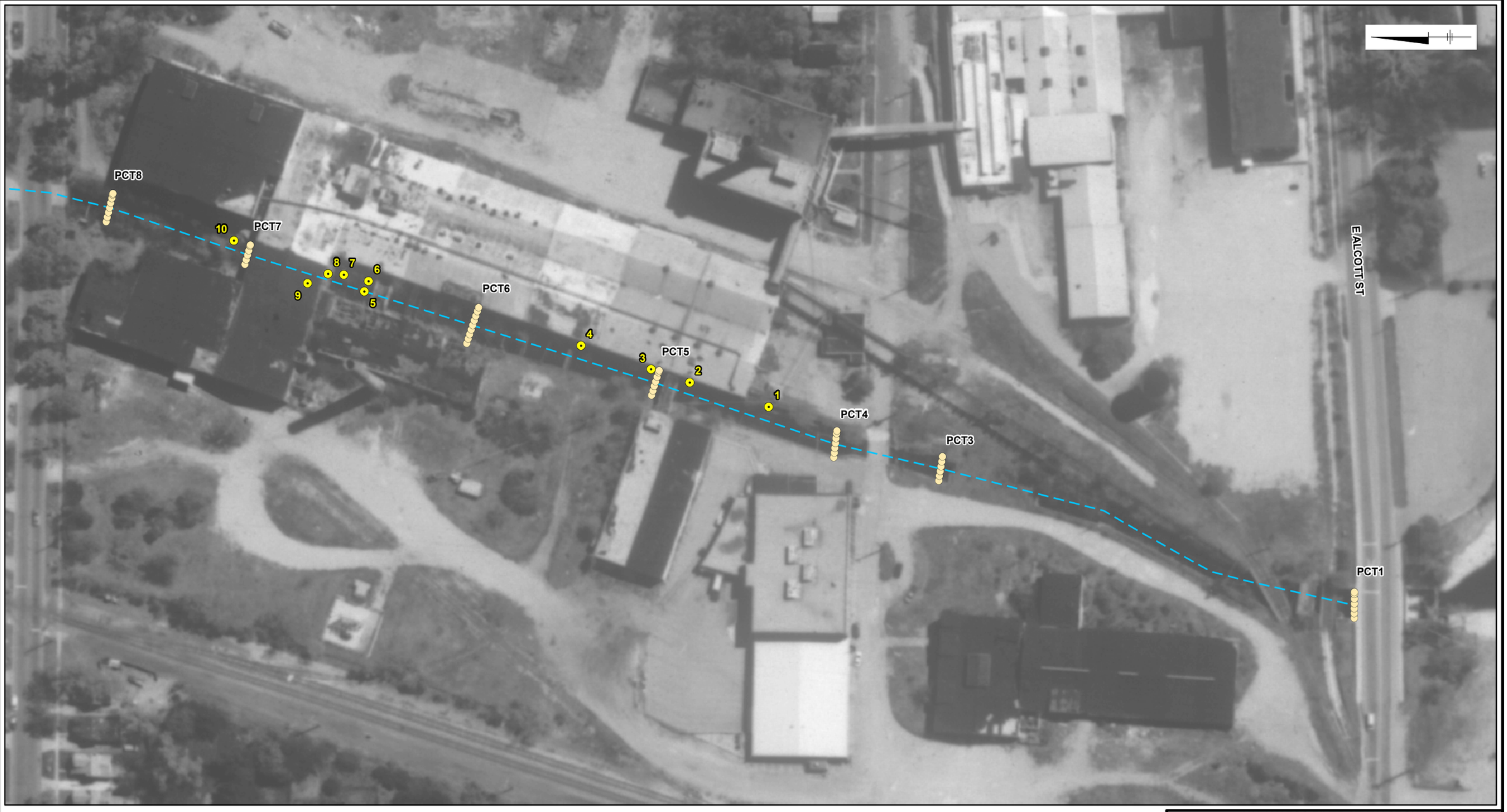
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT PROBING LOCATIONS - PORTAGE CREEK ALCOTT ST. TO CONFLUENCE

ARCADIS

FIGURE 3-16

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Probing Locations - PC.mxd - 4/9/2008 @ 10:01:02 AM



LEGEND:

- SEDIMENT DEPOSIT LOCATION (APPROXIMATE)

SEDIMENT PROBING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE
- PORTAGE CREEK CENTERLINE

0 100 200 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SEDIMENT DEPOSIT LOCATIONS DESCRIBED IN TABLE 3-21.
3. SEDIMENT TRANSECT PCT2 WAS NOT PROBED DUE TO ACCESS ISSUES.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - PORTAGE CREEK TRANSECTS PCT1 TO PCT8

ARCADIS

FIGURE
3-17

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - PCT1-PCT8.mxd - 4/11/2008 @ 10:03:21 AM

LEGEND:

- SEDIMENT DEPOSIT LOCATION (APPROXIMATE)

SEDIMENT PROBING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE
- PORTAGE CREEK CENTERLINE

0 150 300 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SEDIMENT DEPOSIT LOCATIONS DESCRIBED IN TABLE 3-21.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

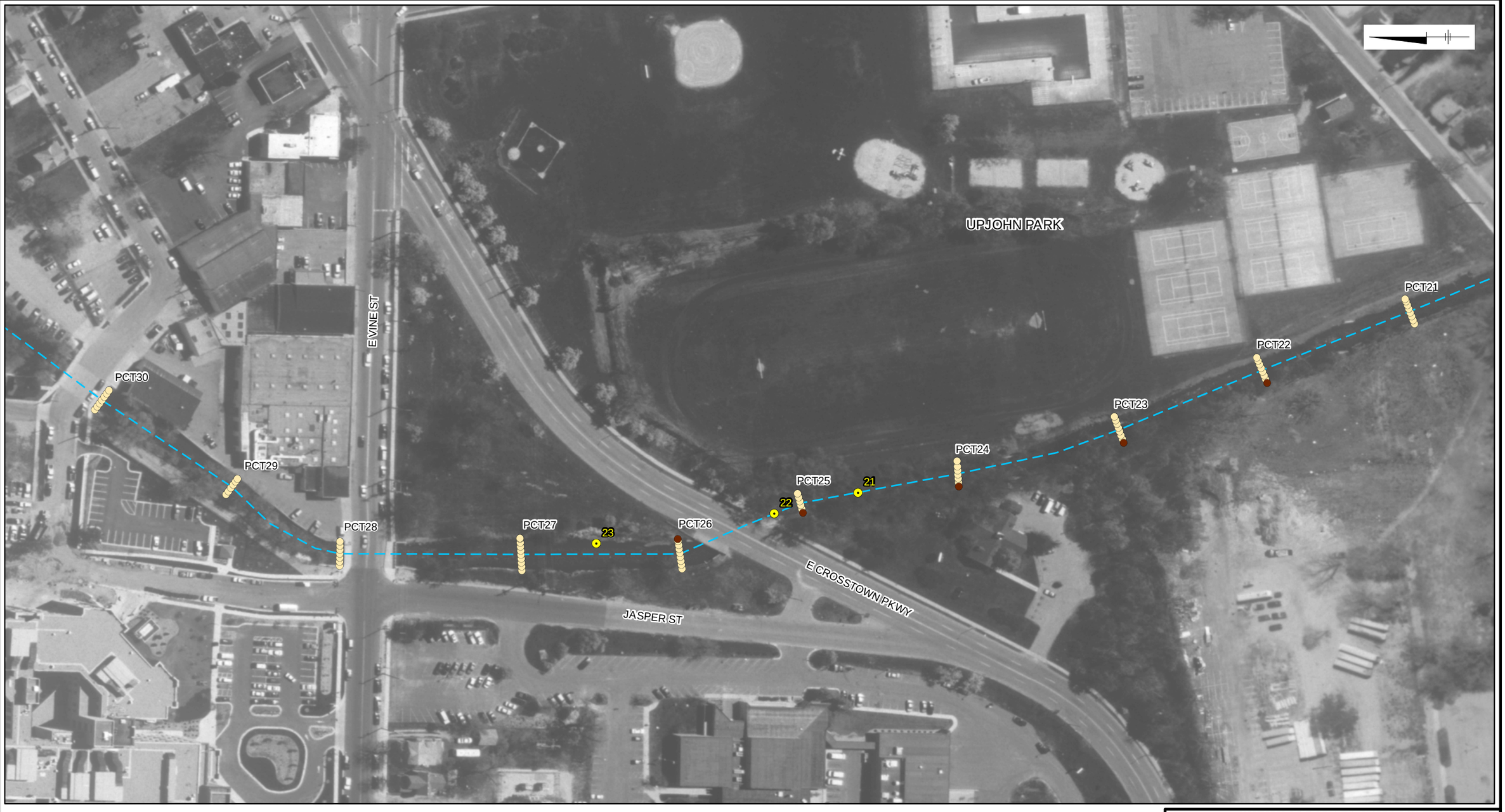
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - PORTAGE CREEK TRANSECTS PCT9 TO PCT20

ARCADIS

FIGURE 3-18

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - PCT9-PCT20.mxd - 4/11/2008 @ 10:04:03 AM



LEGEND:

- SEDIMENT DEPOSIT LOCATION (APPROXIMATE)

SEDIMENT PROBING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE
- PORTAGE CREEK CENTERLINE

0 120 240 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SEDIMENT DEPOSIT LOCATIONS DESCRIBED IN TABLE 3-21.

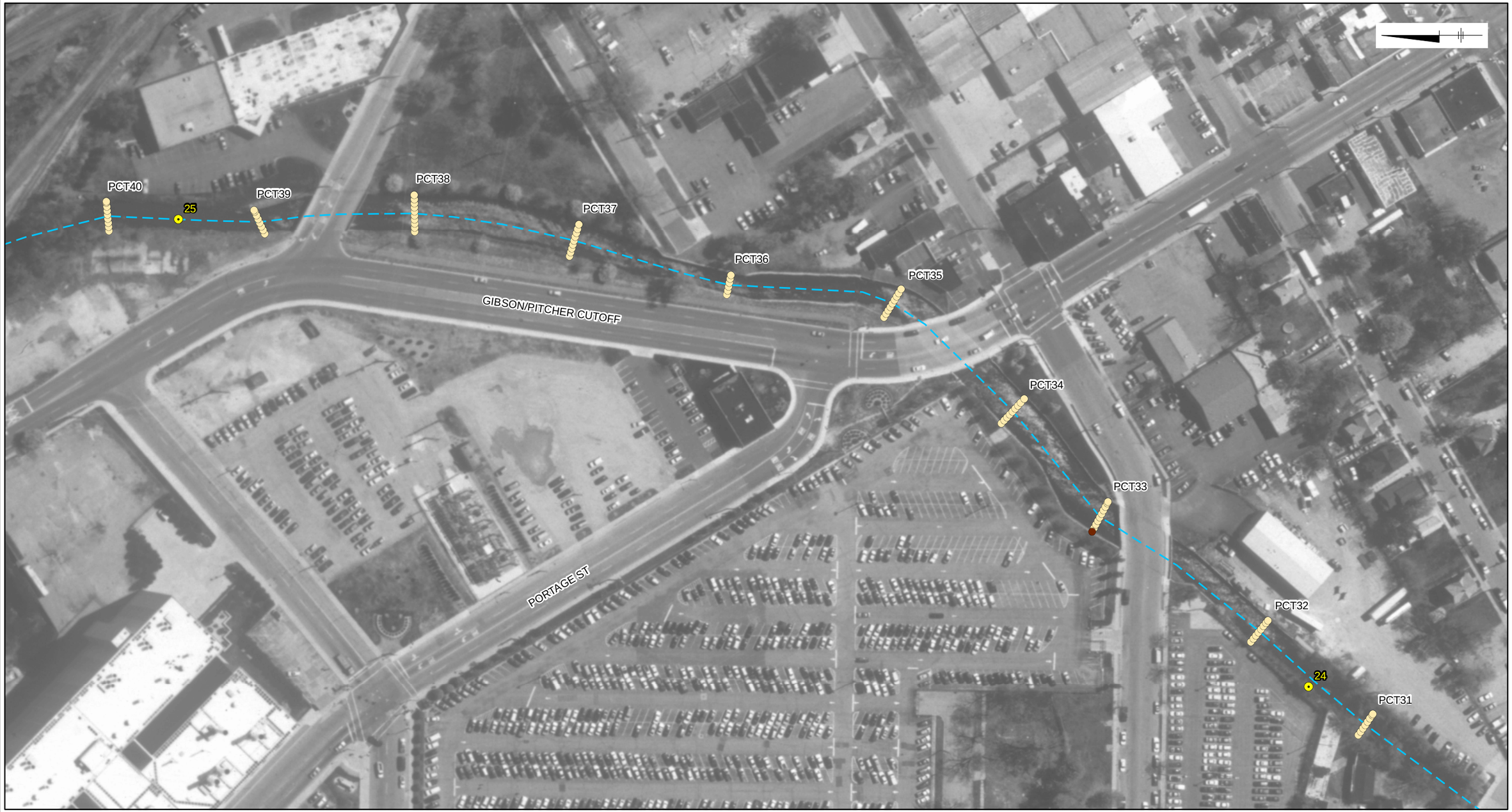
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - PORTAGE CREEK TRANSECTS PCT21 TO PCT30

ARCADIS

FIGURE 3-19

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - PCT21-PCT30.mxd - 4/11/2008 @ 10:05:41 AM



LEGEND:

- SEDIMENT DEPOSIT LOCATION (APPROXIMATE)

SEDIMENT PROBING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE
- PORTAGE CREEK CENTERLINE

0 120 240 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SEDIMENT DEPOSIT LOCATIONS DESCRIBED IN TABLE 3-21.

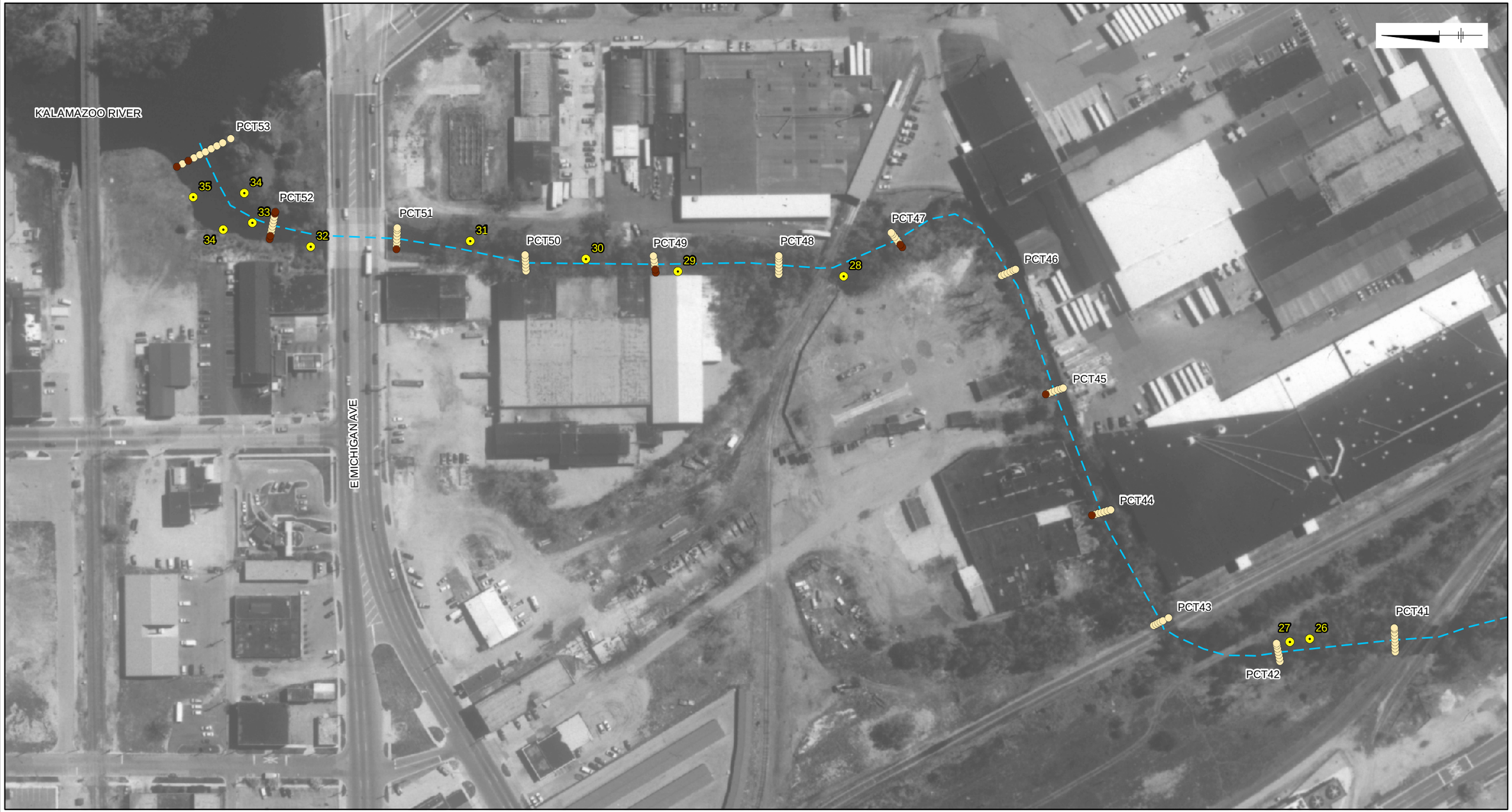
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - PORTAGE CREEK TRANSECTS PCT31 TO PCT40

ARCADIS

FIGURE 3-20

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - PCT31-PCT40.mxd - 4/11/2008 @ 10:06:26 AM



LEGEND:

- SEDIMENT DEPOSIT LOCATION (APPROXIMATE)

SEDIMENT PROBING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE
- PORTAGE CREEK CENTERLINE

0 150 300 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SEDIMENT DEPOSIT LOCATIONS DESCRIBED IN TABLE 3-21.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

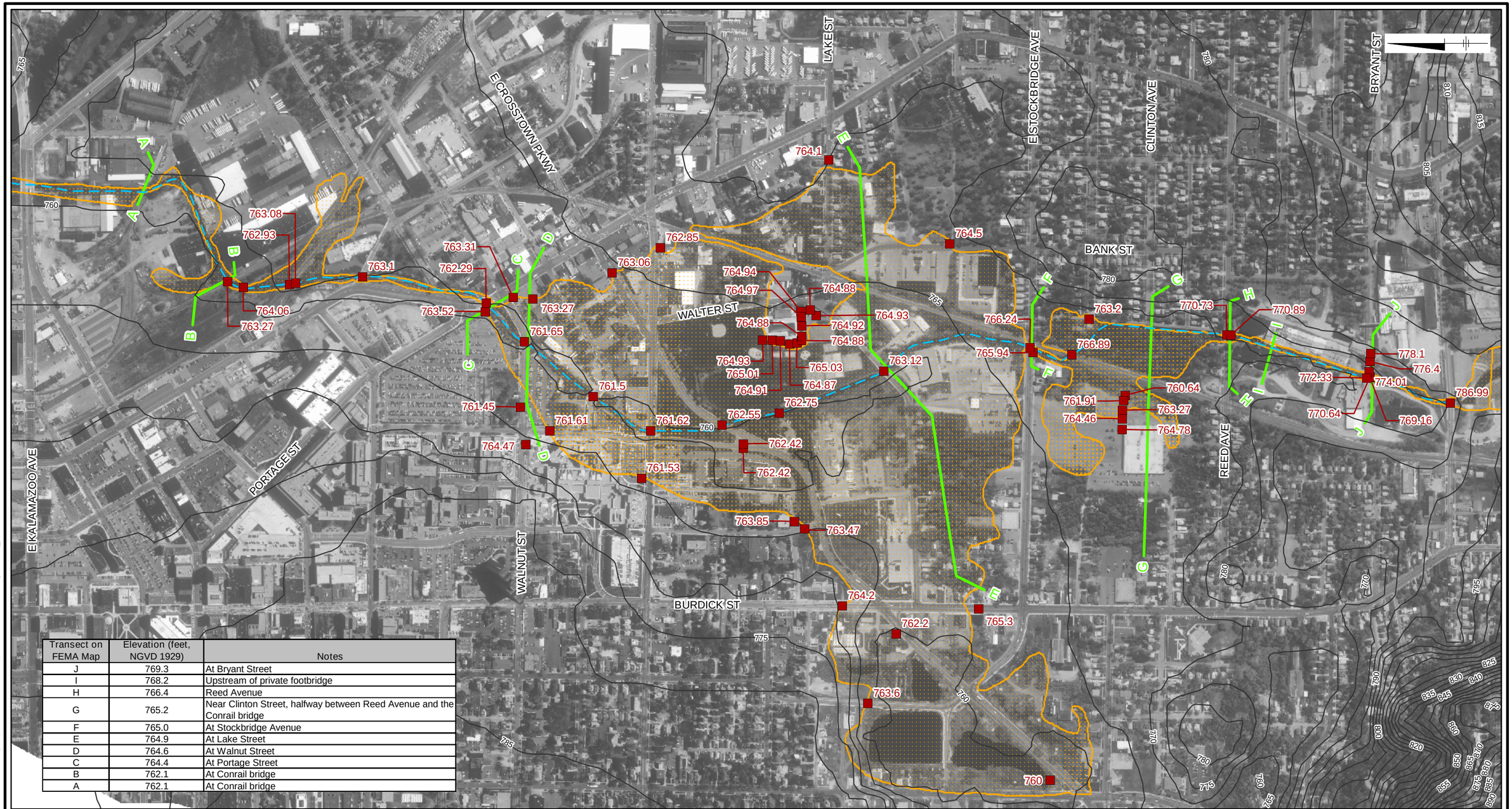
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

SEDIMENT TRANSECT SAMPLING CHARACTERIZATION - PORTAGE CREEK TRANSECTS PCT41 TO PCT53

ARCADIS

FIGURE 3-21

SYR-85 MTK KEW
KRSG (B0064524.0000.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Sediment Sampling Characterization - PCT41-PCT53.mxd - 4/11/2008 @ 10:08:39 AM



Transect on FEMA Map	Elevation (feet, NGVD 1929)	Notes
J	769.3	At Bryant Street
I	768.2	Upstream of private footbridge
H	766.4	Reed Avenue
G	765.2	Near Clinton Street, halfway between Reed Avenue and the Conrail bridge
F	765.0	At Stockbridge Avenue
E	764.9	At Lake Street
D	764.6	At Walnut Street
C	764.4	At Portage Street
B	762.1	At Conrail bridge
A	762.1	At Conrail bridge

LEGEND:

- ARCADIS SURVEY CONFIRMATION POINTS - SEPTEMBER 2007
- PORTAGE CREEK CENTERLINE (APPROXIMATE)
- FEMA FLOODPLAIN TRANSECT
- ESTIMATED FEMA 100 YEAR FLOODPLAIN

0 600 1,200 Feet

GRAPHIC SCALE

NOTES:

1. FEMA FLOODPLAIN ELEVATION INFORMATION PROVIDED BY THE CITY OF KALAMAZOO.
2. FLOODPLAIN TRANSECTS FROM FEMA FLOODPLAIN MAP, 260315 0016 C, REVISED IN 1992.

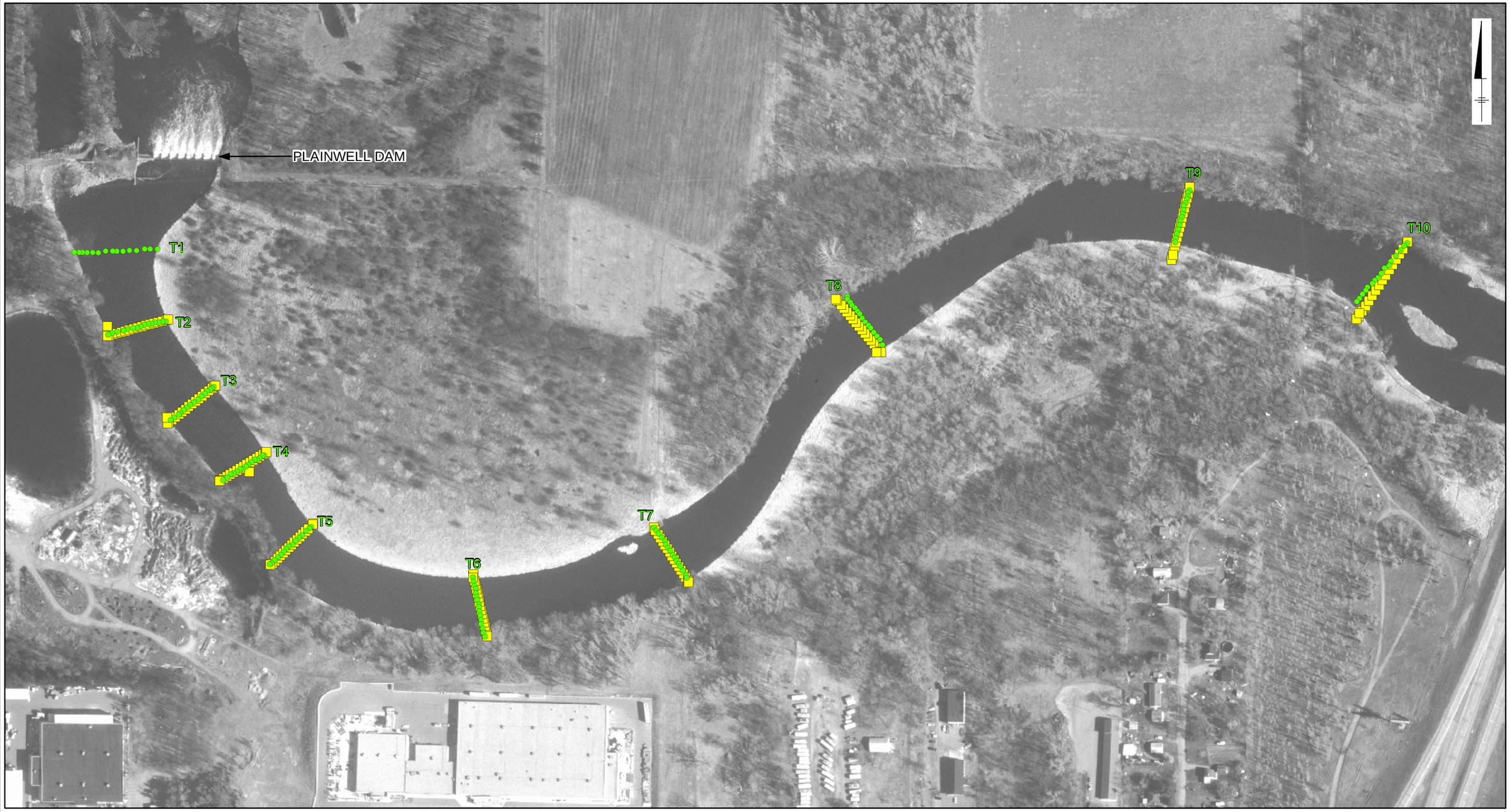
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

FEMA FLOODPLAIN TRANSECTS

ARCADIS

FIGURE 3-22

SYR-85 MTK KEW
KRSG (64524.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\FEMA Floodplain Transects - Portage Creek_LANDSCAPE.mxd - 4/9/2008 @ 10:15:39 AM



LEGEND:

- USGS SURVEY LOCATION
- ARCADIS SURVEY LOCATION

0 250 500 Feet

GRAPHIC SCALE

NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. USGS DATA COLLECTED AUGUST 2000.
3. ARCADIS DATA COLLECTED DECEMBER 2007.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

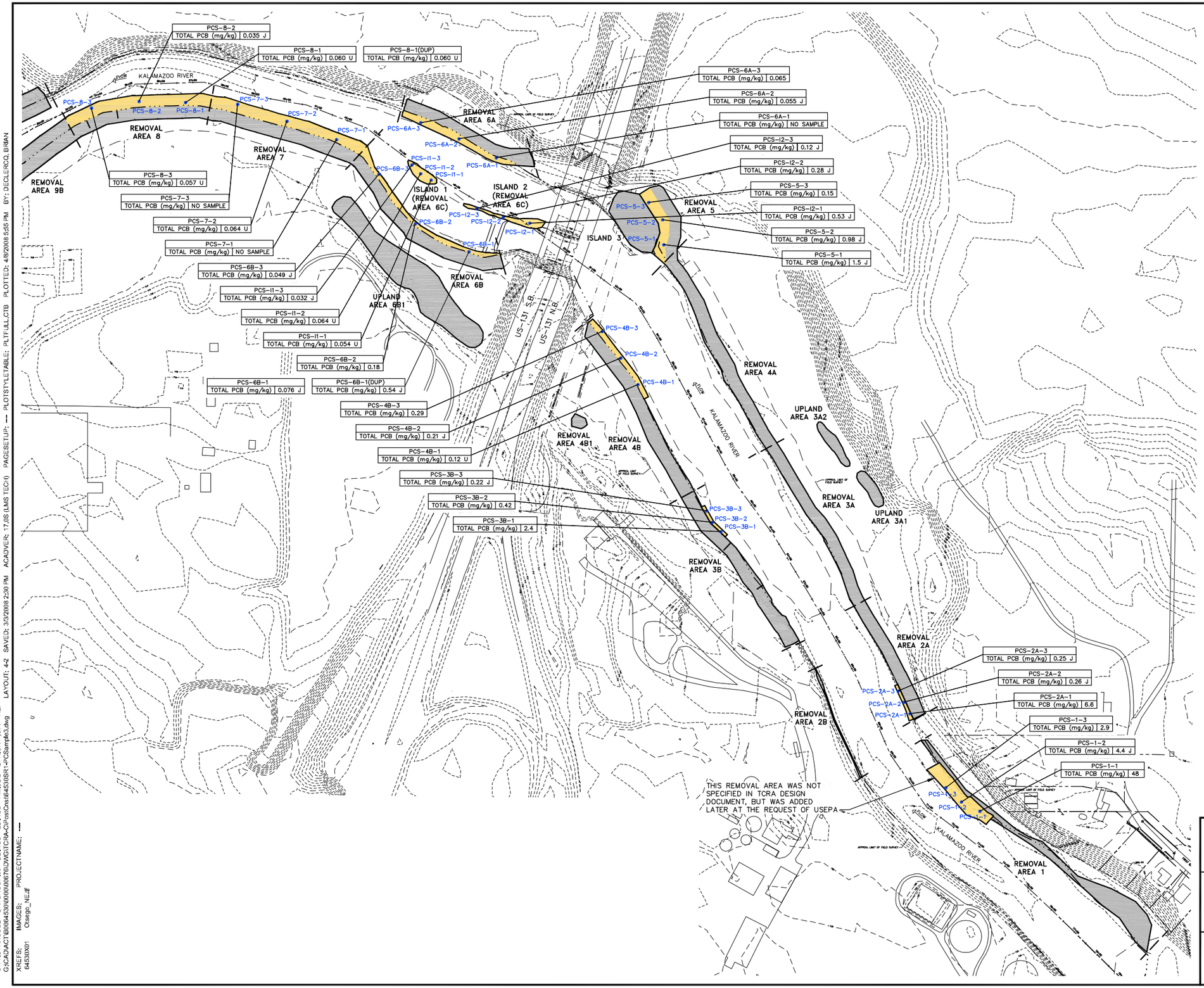
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

BATHYMETRIC SURVEY
TRANSECTS IN THE FORMER
PLAINWELL IMPOUNDMENT

ARCADIS

FIGURE
4-1

SYR-85 MTK KEW
KRSG (64524.0500)
Q:\KRSG\MorrowDamToPlainwellDam\SRI_Phase1DataSummaryReport\mxd\Bathymetry Survey - December 2007.mxd - 4/9/2008 @ 10:17:00 AM



LEGEND:

- LIMITS OF SEDIMENT REMOVAL AREAS
- LIMITS OF BANK/FLOODPLAIN REMOVAL AREAS
- 0"–2" POST–CONSTRUCTION GRAB SEDIMENT SAMPLE LOCATION

NOTE:

1. SAMPLE AREAS ARE THE NEAR–SHORE SEDIMENT REMOVAL AREAS THAT WERE ADDRESSED IN THE 2007 CONSTRUCTION SEASON. THE OUTLINES OF THE AREAS ARE THE AS–BUILT DIMENSIONS OF EACH AREA. THE LANDWARD SIDE OF THE AREA WAS DEFINED AS THE MEDIAN DAM–IN WATER SURFACE ELEVATION, AND VARIES THROUGHOUT THE IMPOUNDMENT.

0 150' 300'
GRAPHIC SCALE

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

POST-CONSTRUCTION TCRA PCB SAMPLE LOCATIONS AND RESULTS

ARCADIS

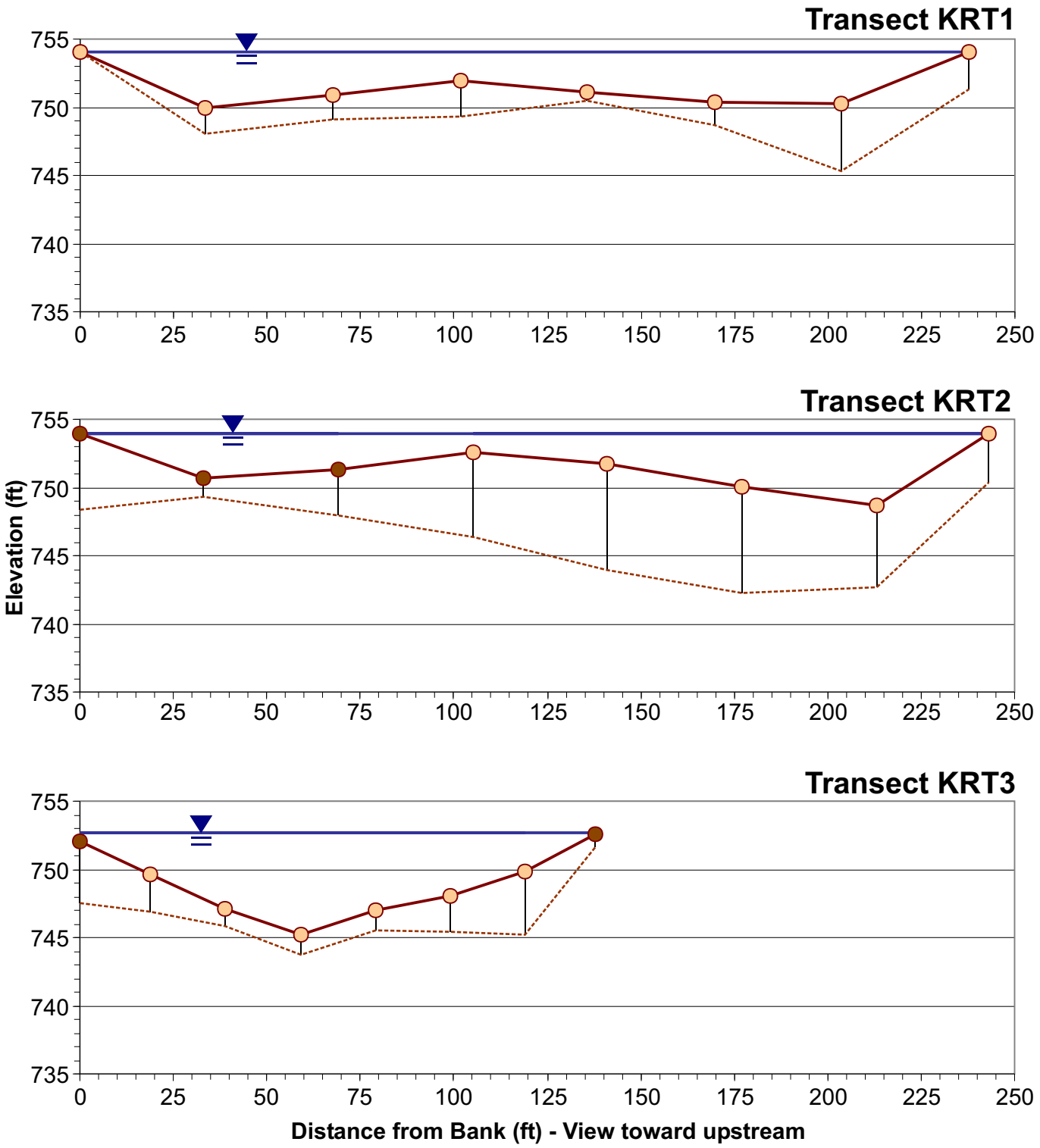
FIGURE
4-2

CITY:SYRACUSE DIV/GROUP:85 DB:AGS LD:AGS PM:SDG LYR:ON=*;OFF=*REF* PAGESETUP:---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 4/8/2008 5:55 PM BY: DECLERCQ, BRIAN
G:\CADACT\B0064530\0000\00676\DWG\TCRA-CI\Post\Crss\64530SR1-PCSample3.dwg LAYOUT: 4-2 SAVED: 3/3/2008 2:30 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ----
XREFS: 64530X01 Osegp_NE.dif IMAGES: PROJECTNAME: ----

ARCADIS

Appendix A

Kalamazoo River Transect Cross-Sections



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Fine Sediment Location
- Coarse Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

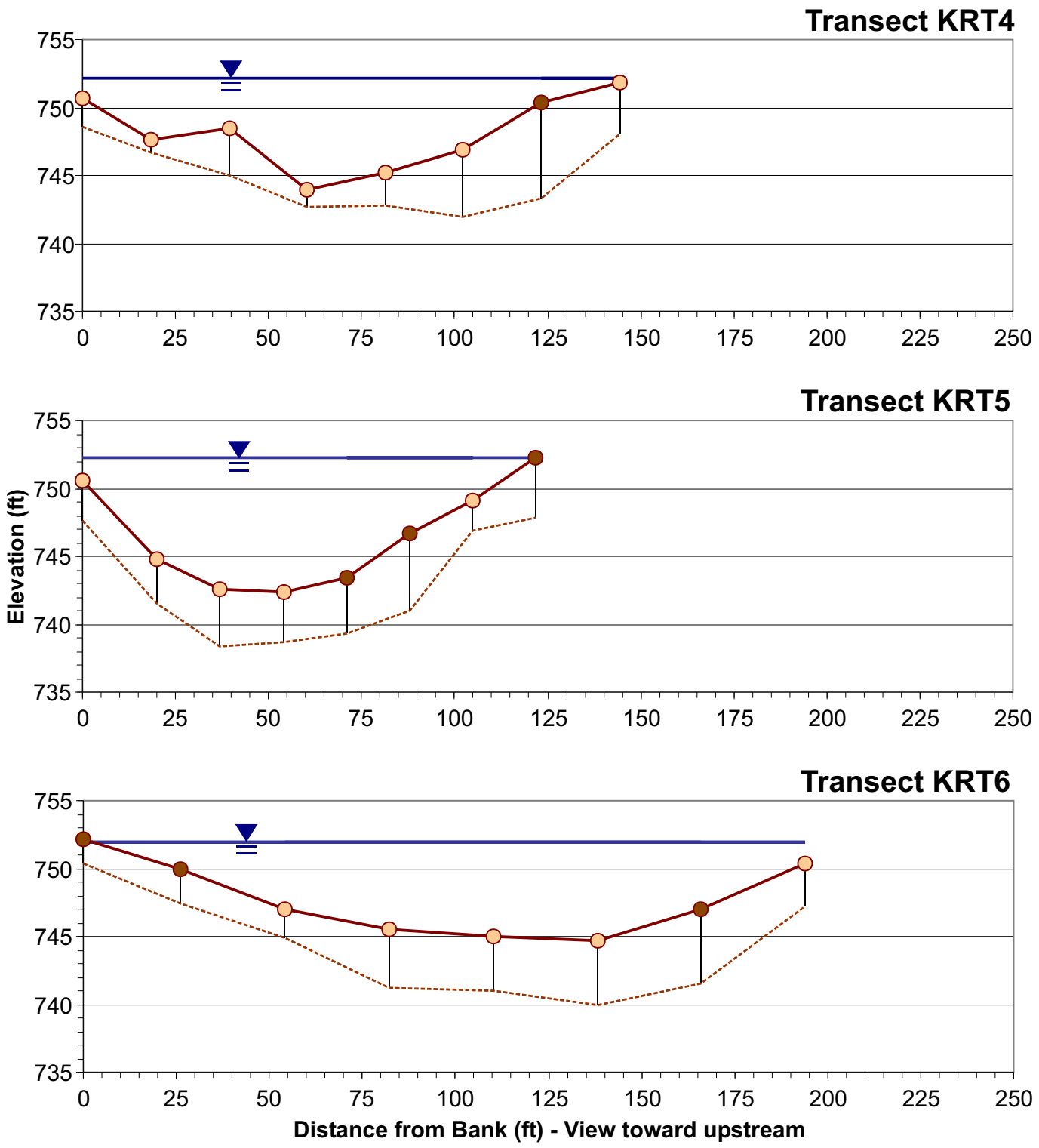
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

KALAMAZOO RIVER TRANSECTS KRT1 - KRT3

ARCADIS

APPENDIX
A

01/22/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G01.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Fine Sediment Location
- Coarse Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

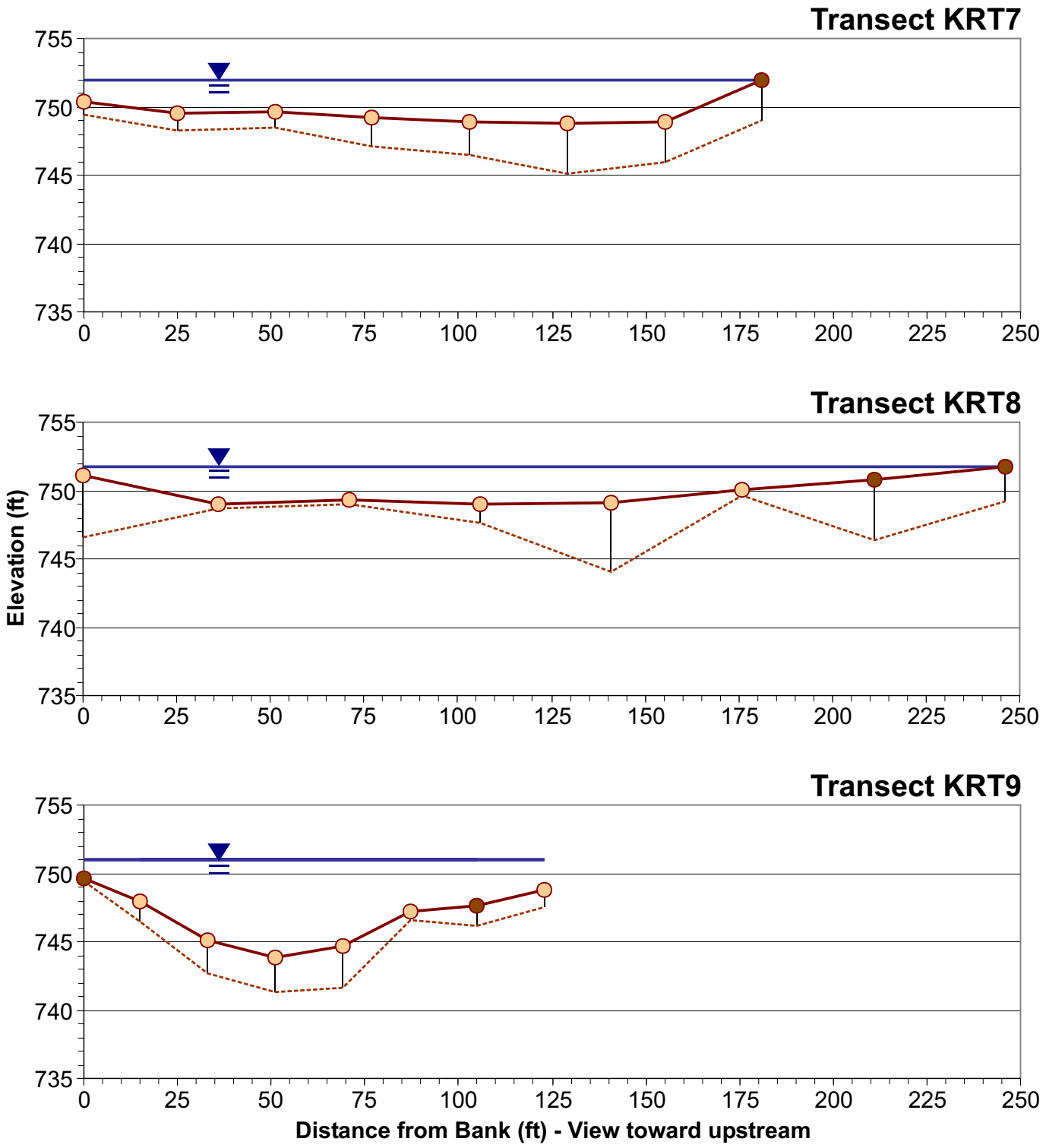
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

KALAMAZOO RIVER TRANSECTS KRT4 - KRT6

ARCADIS

APPENDIX
A

01/22/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G02.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Fine Sediment Location
- Coarse Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

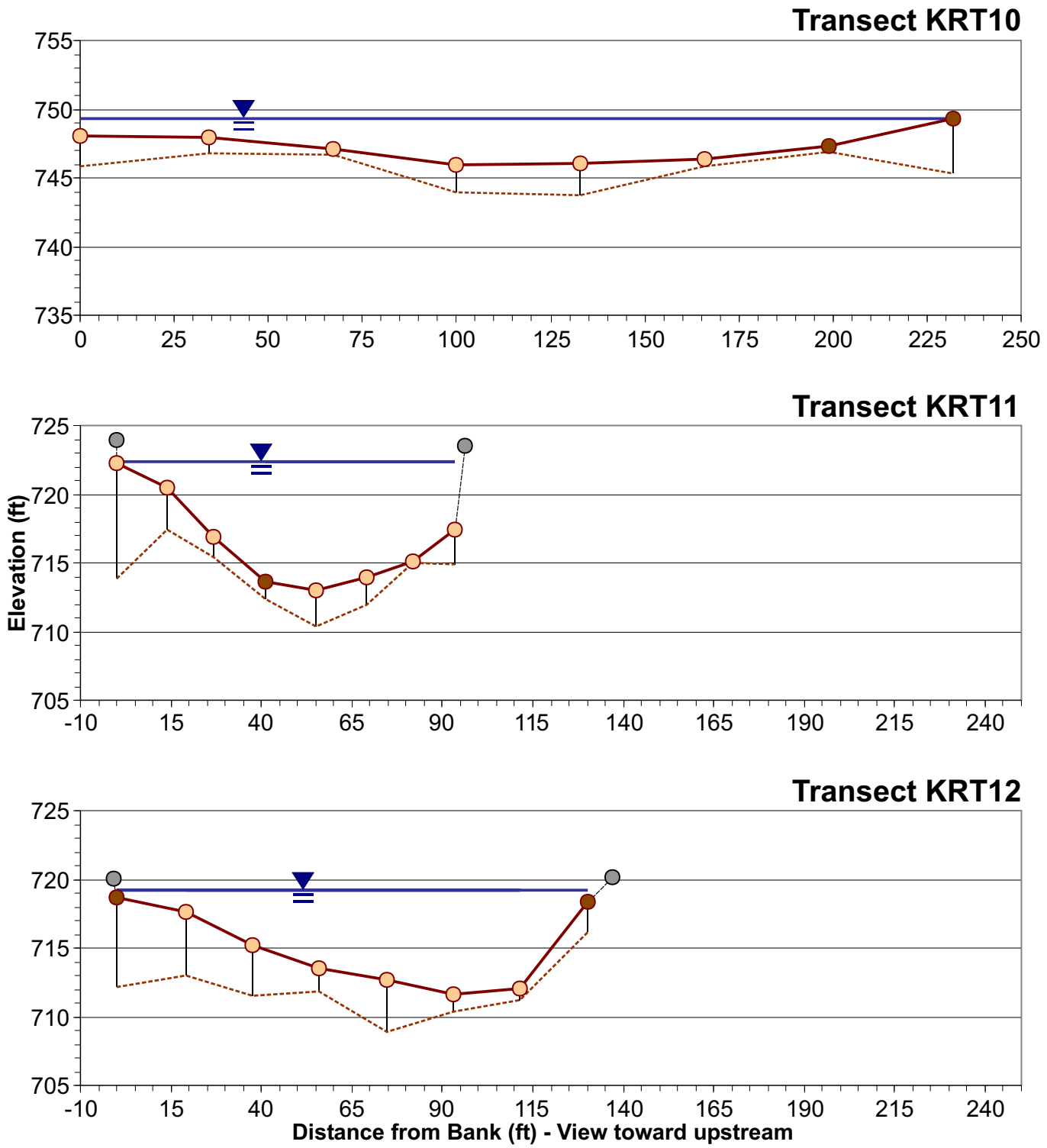
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

KALAMAZOO RIVER TRANSECTS KRT7 - KRT9

ARCADIS

APPENDIX
A

01/22/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G03.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Fine Sediment Location
- Coarse Sediment Location
- Top of Bank

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

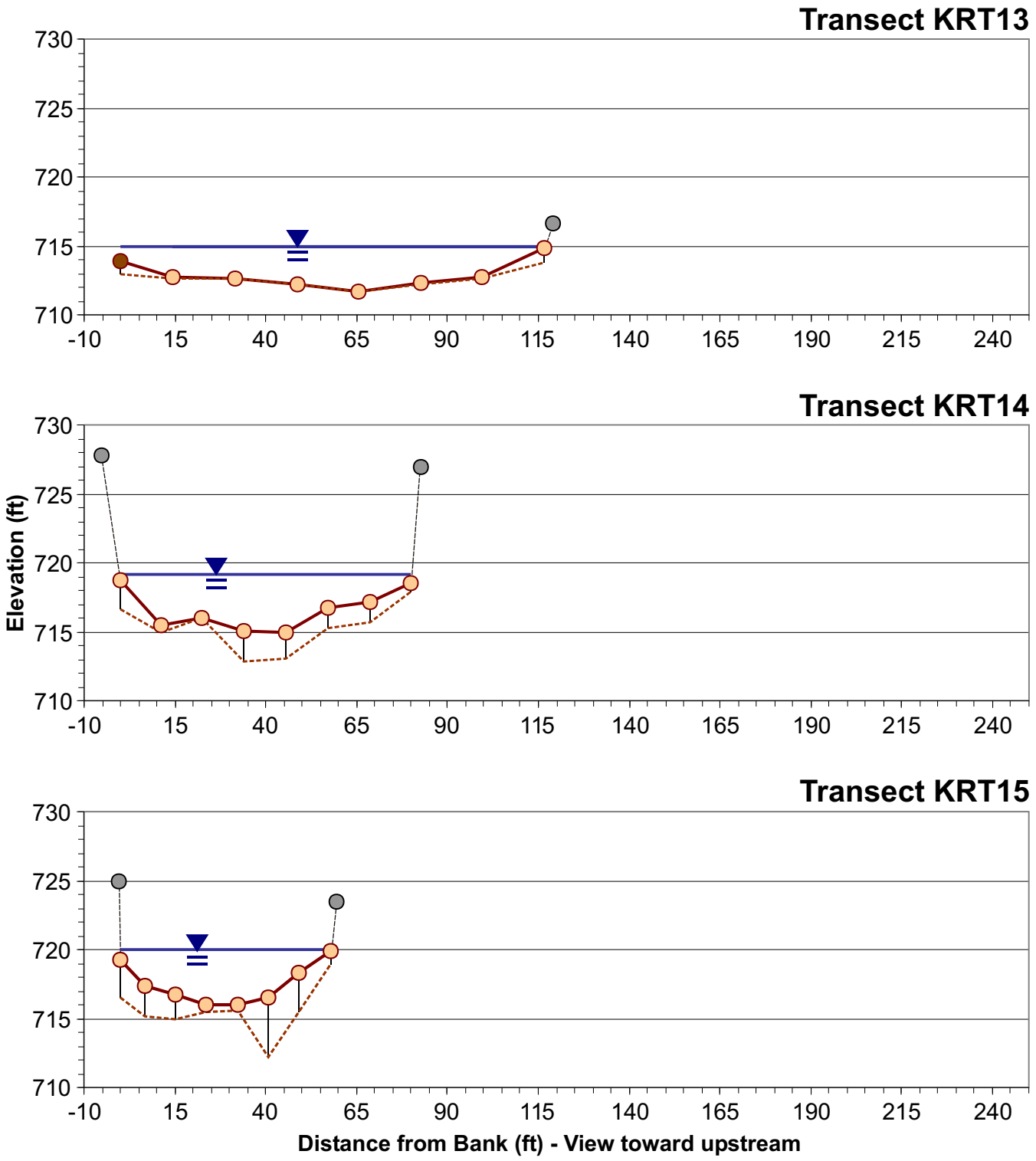
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

KALAMAZOO RIVER TRANSECTS KRT10 - KRT12

ARCADIS

APPENDIX
A

02/11/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G04.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Fine Sediment Location
- Coarse Sediment Location
- Top of Bank

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

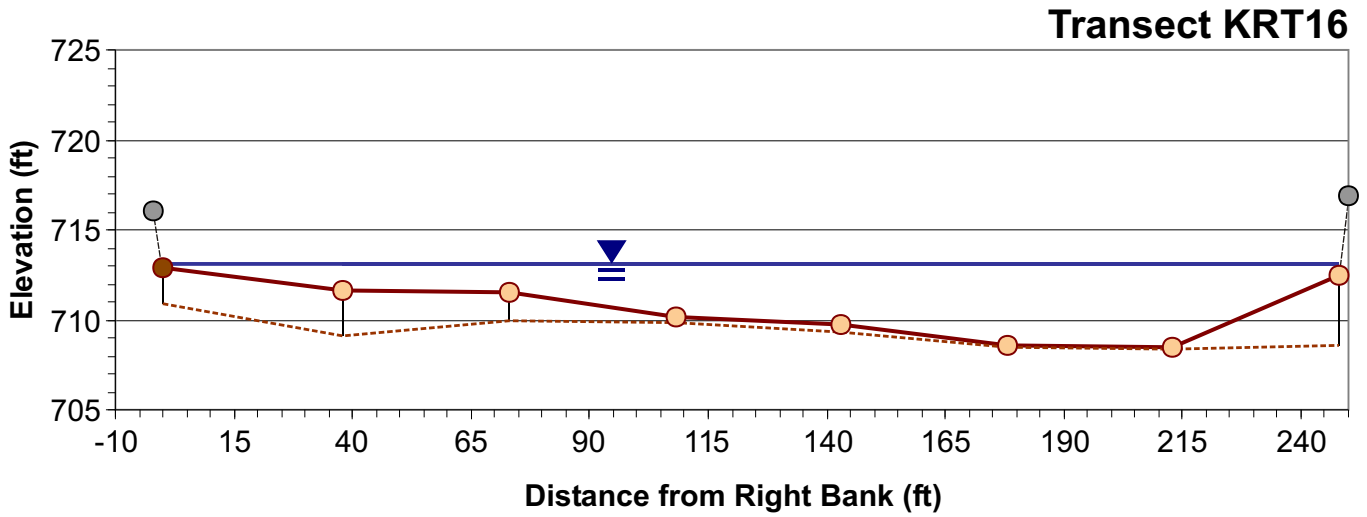
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

KALAMAZOO RIVER TRANSECTS KRT13 - KRT15

ARCADIS

APPENDIX
A

01/22/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G05.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Fine Sediment Location
- Coarse Sediment Location
- Top of Bank

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

KALAMAZOO RIVER TRANSECTS
KRT16

ARCADIS

APPENDIX
A

02/11/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G06.CDR

ARCADIS

Appendix B

Crown Vantage Landfill Upland Reconnaissance Photographs

Location 1: Decayed paper with foil facing at ground surface, approximately 2.5' x 2.5' in size.

Location 2: 2-3' diameter roll of aluminum and paper oriented vertically. “Heavy duty” visible on paper.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL UPLAND RECONNAISSANCE PHOTOGRAPHS

ARCADIS

APPENDIX
B

04/09/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G04.CDR

Location 3: Wolfs Head motor oil on paper stock, approximately 2' x 2' at ground surface.

Location 4: Round plastic sheeting at surface, approximately 5' in length. Majority is below ground surface.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL UPLAND RECONNAISSANCE PHOTOGRAPHS

ARCADIS

APPENDIX
B

04/09/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G05.CDR

Location 5: Fallen tree with gray material in root mass.

Location 6: Floodplain berm - exposed landfill with several exposed coils of aluminum-faced paper stock with gray soil matrix.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL
UPLAND RECONNAISSANCE
PHOTOGRAPHS

ARCADIS

APPENDIX
B

01/25/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G06.CDR

Location 7: Floodplain berm - several exposed coils of aluminum-faced paper stock with gray soil matrix.

Location 8: Fallen tree with gray soil in root matrix.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL
UPLAND RECONNAISSANCE
PHOTOGRAPHS

ARCADIS

APPENDIX
B

01/25/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G09.CDR

Location 9: Fallen tree with gray soil in root matrix.

Location 10: Fallen tree with gray soil in root matrix

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL
UPLAND RECONNAISSANCE
PHOTOGRAPHS

ARCADIS

APPENDIX
B

04/09/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G10.CDR

Location 11: Floodplain berm - several exposed coils of aluminum-faced paper stock with gray soil matrix.

Location 12: Aluminum-faced paper stock.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL UPLAND RECONNAISSANCE PHOTOGRAPHS

ARCADIS

APPENDIX
B

04/09/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G11.CDR

Location 13: Aluminum-faced paper stock.

Location 14: Aluminum-faced paper stock.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL
UPLAND RECONNAISSANCE
PHOTOGRAPHS

ARCADIS

APPENDIX
B

04/09/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G15.CDR

Location 15: Aluminum-faced paper stock.

Location 16: Aluminum-faced paper stock.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE LANDFILL
UPLAND RECONNAISSANCE
PHOTOGRAPHS

ARCADIS

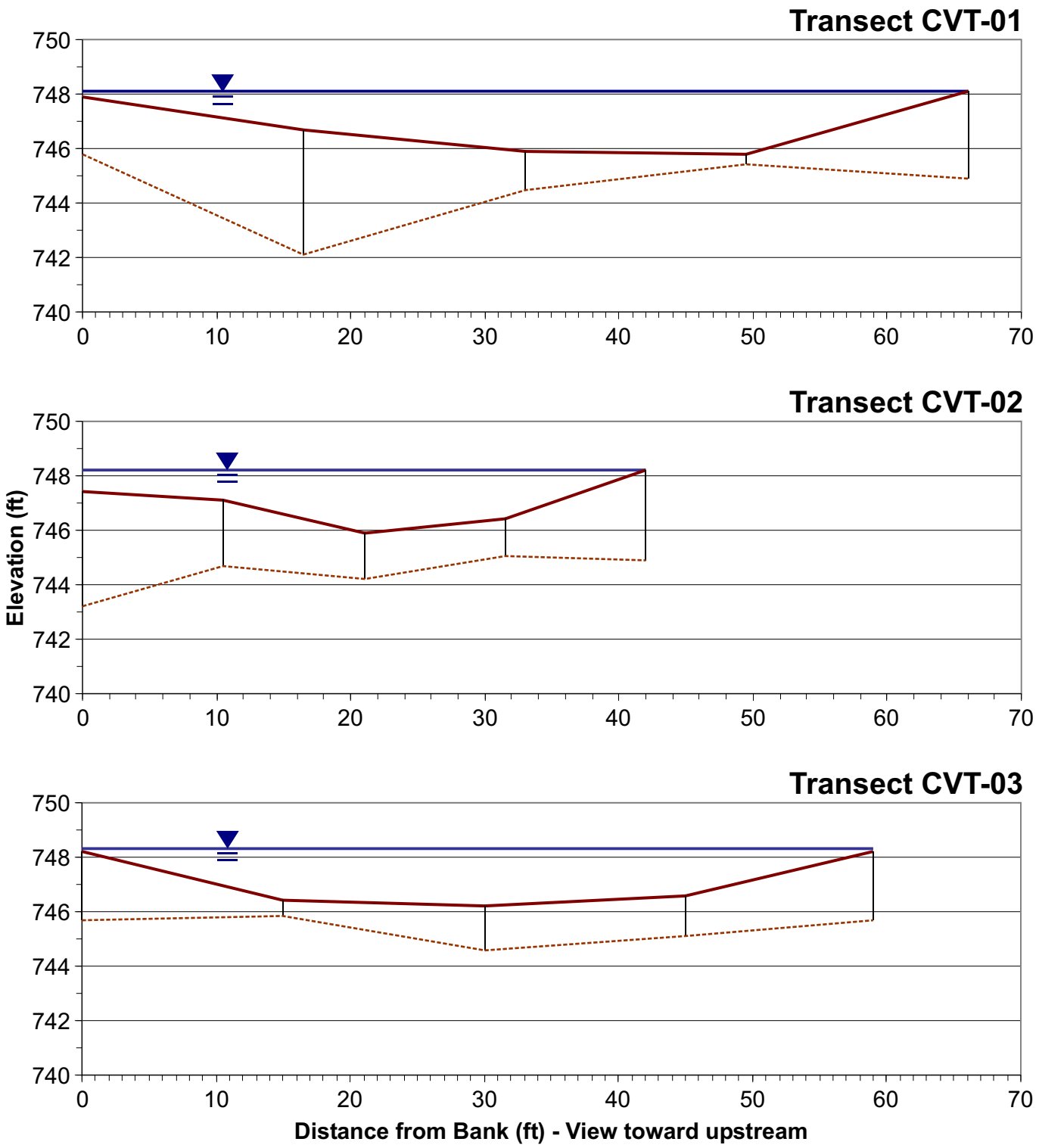
APPENDIX
B

04/09/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G16.CDR

ARCADIS

Appendix C

Crown Vantage Transect Cross-Sections



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

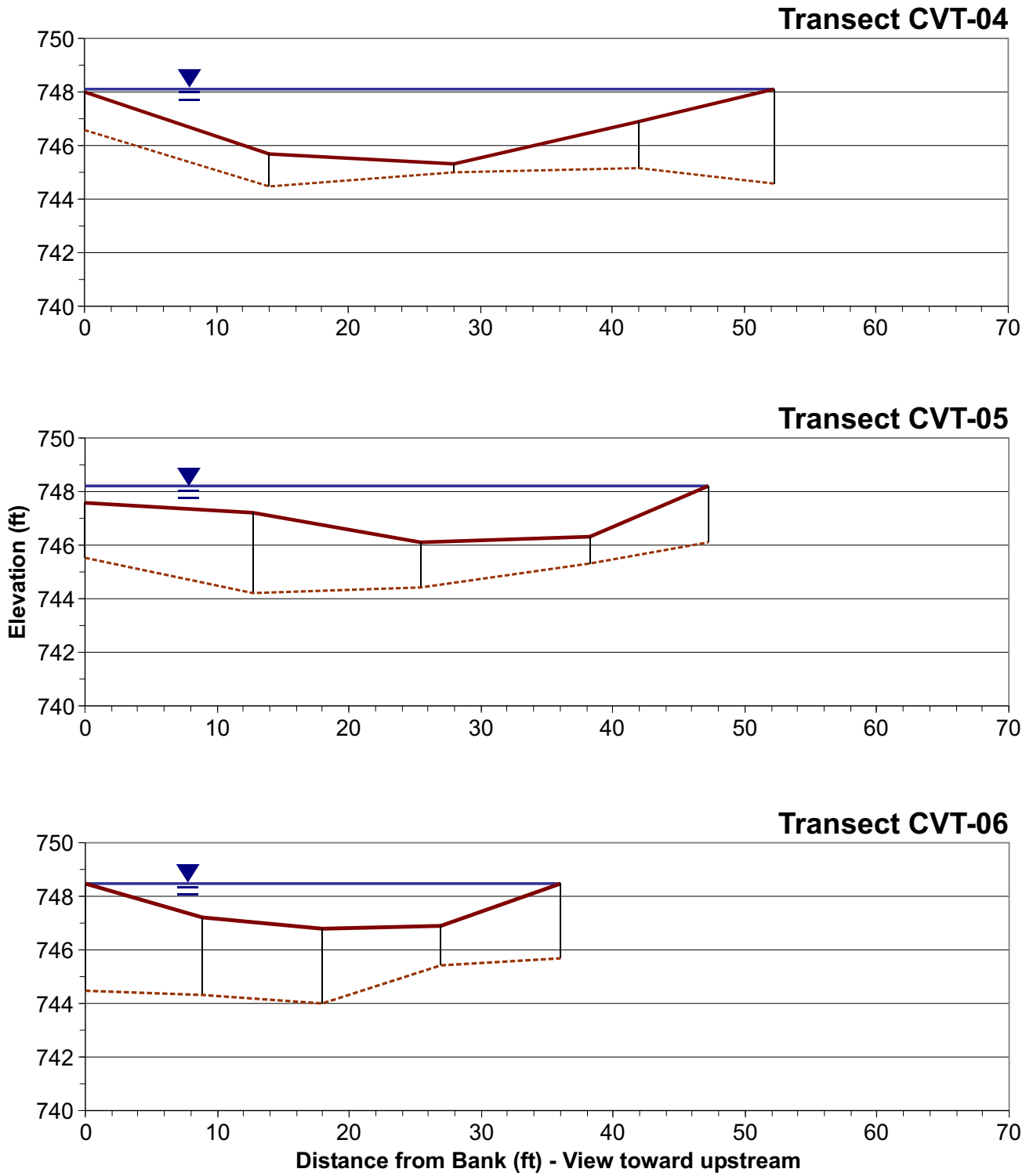
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE TRANSECTS
CVT1 - CVT3

ARCADIS

APPENDIX
C

02/05/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64540G01.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

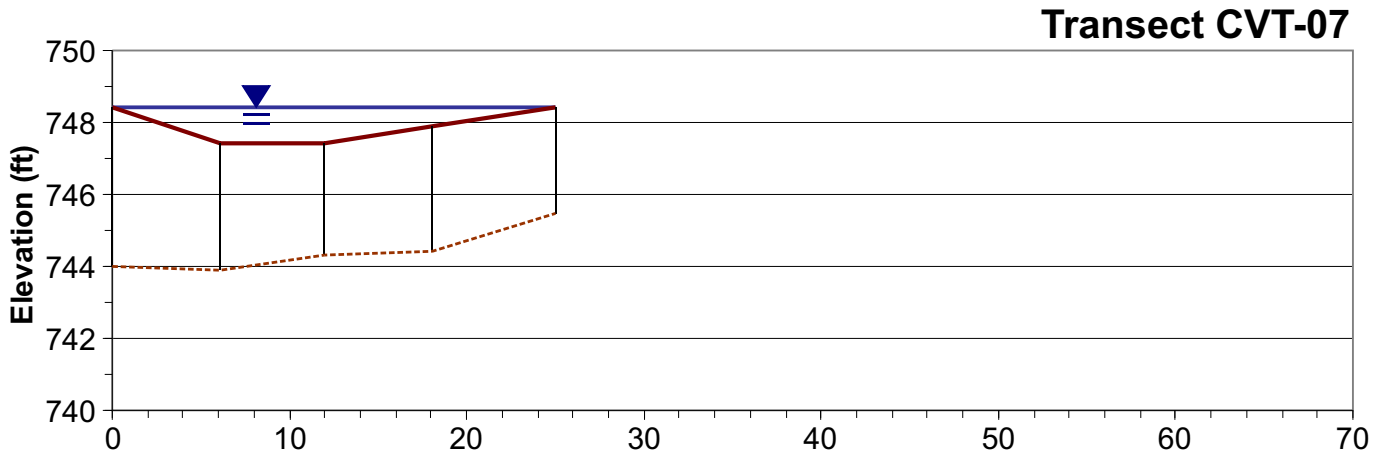
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

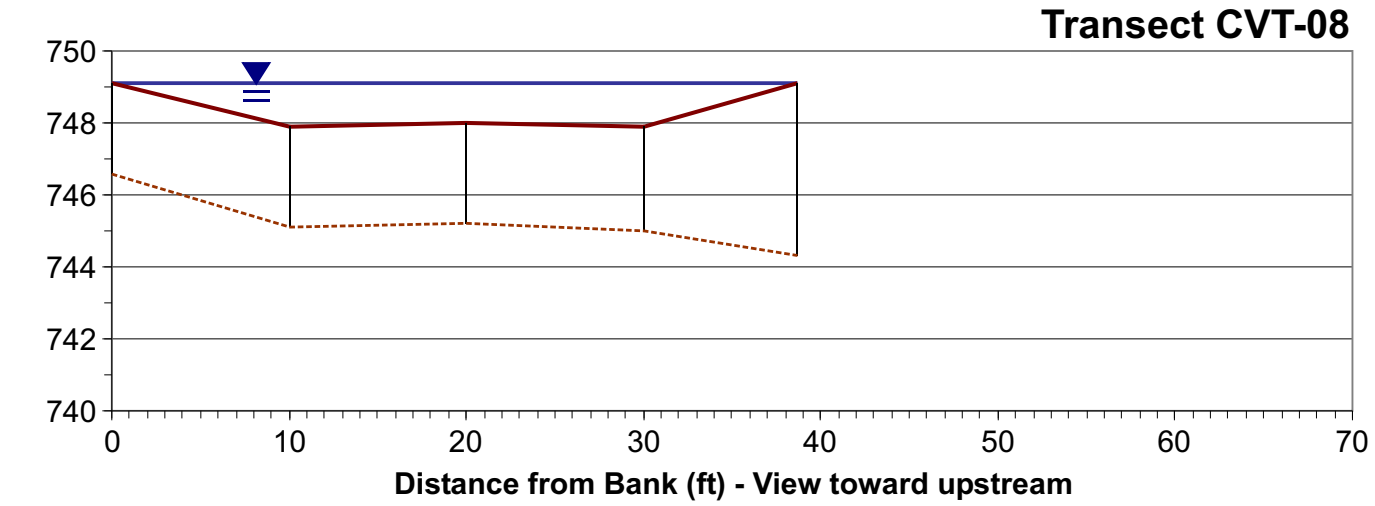
CROWN VANTAGE TRANSECTS
CVT4 - CVT6

ARCADIS

APPENDIX
C

02/05/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64540G02.CDR





LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

CROWN VANTAGE TRANSECTS
CVT7 - CVT8

ARCADIS

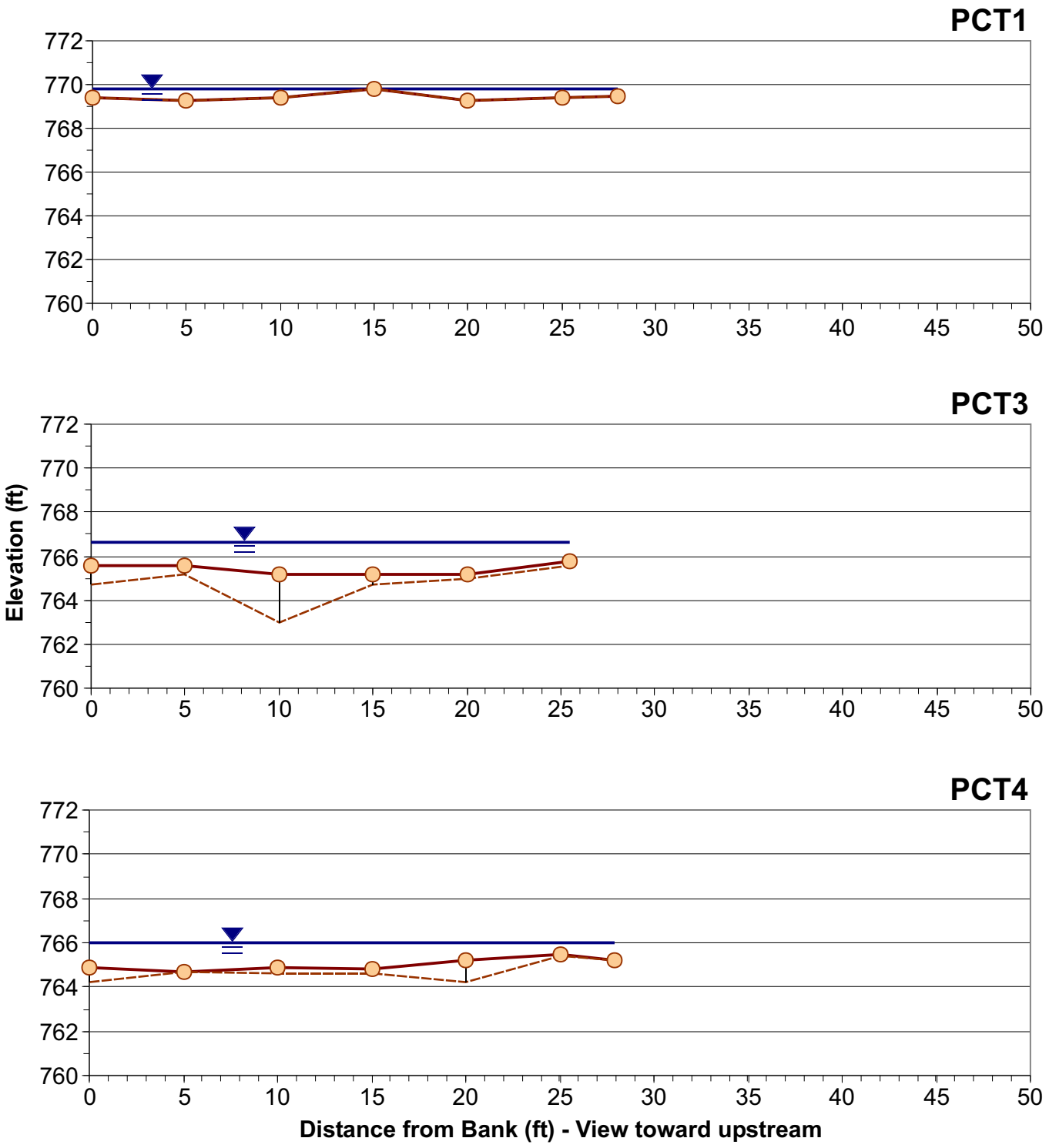
APPENDIX
C

01/23/08 SYR-D85-DJH
B0064540/0000/00500/CDR/64524G03.CDR

ARCADIS

Appendix D

Portage Creek Transect Cross-Sections



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

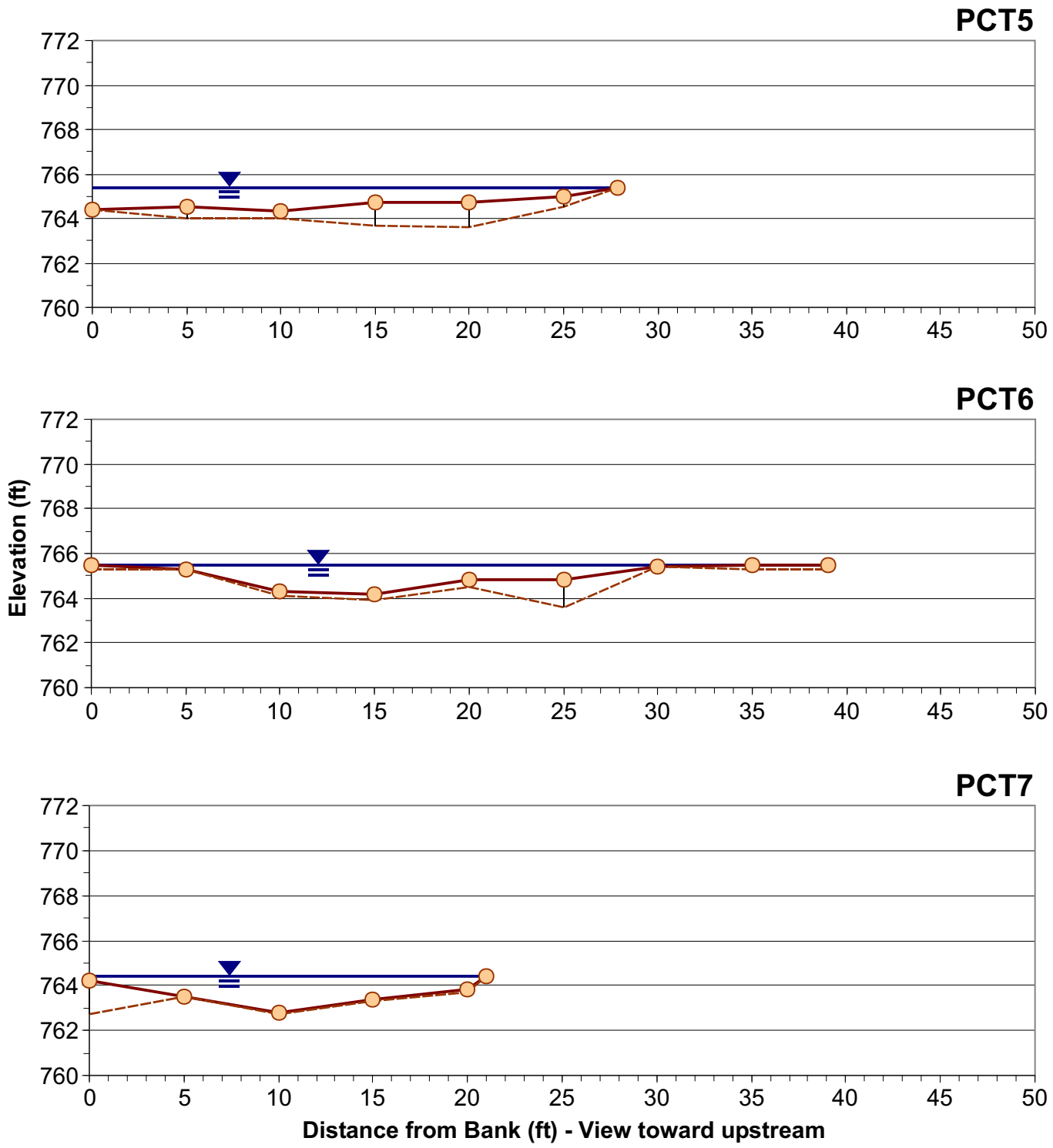
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS PCT1, PCT3, AND PCT4

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G01.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

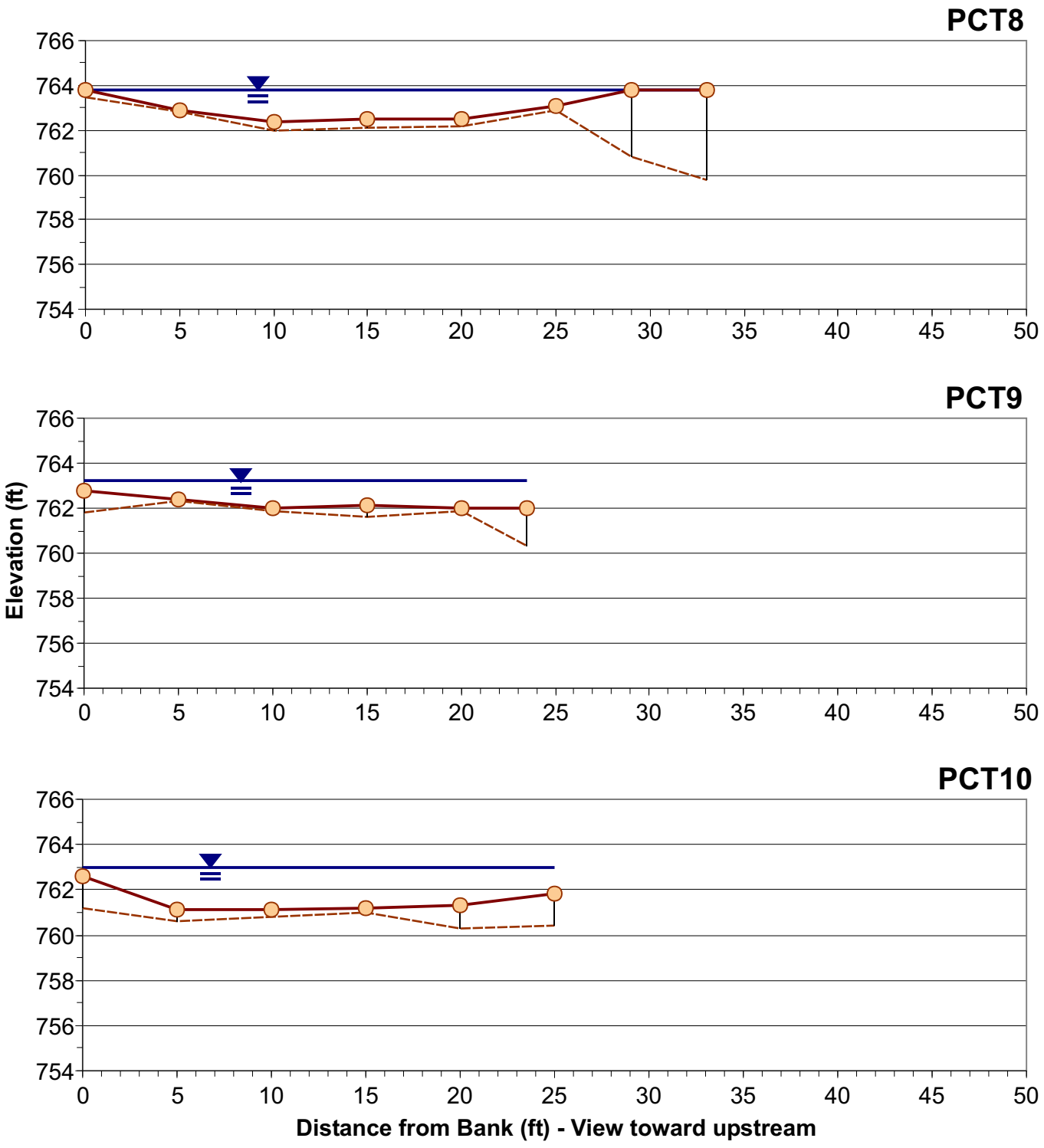
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT5 - PCT7

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G02.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

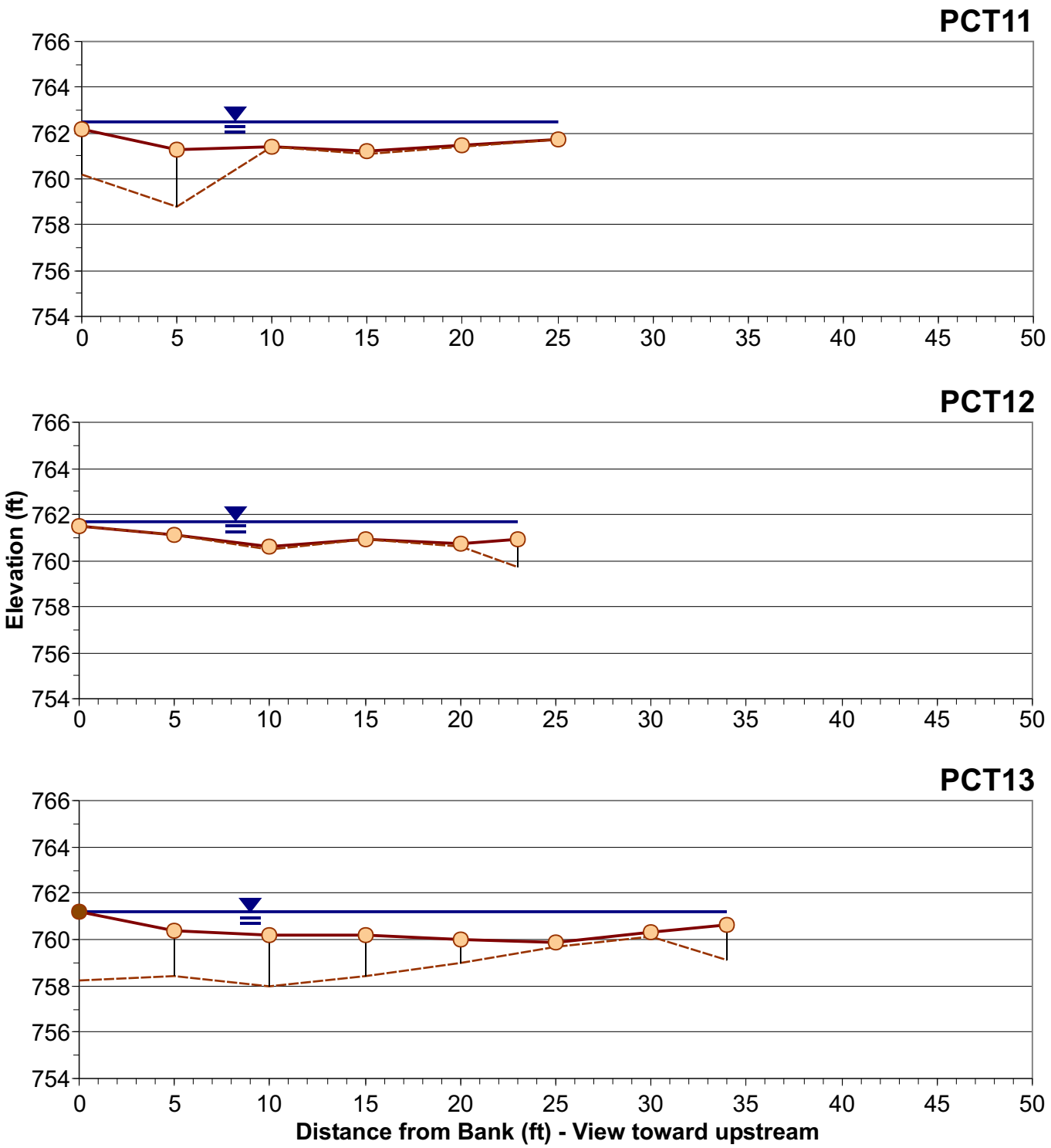
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT8 - PCT10

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G03.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

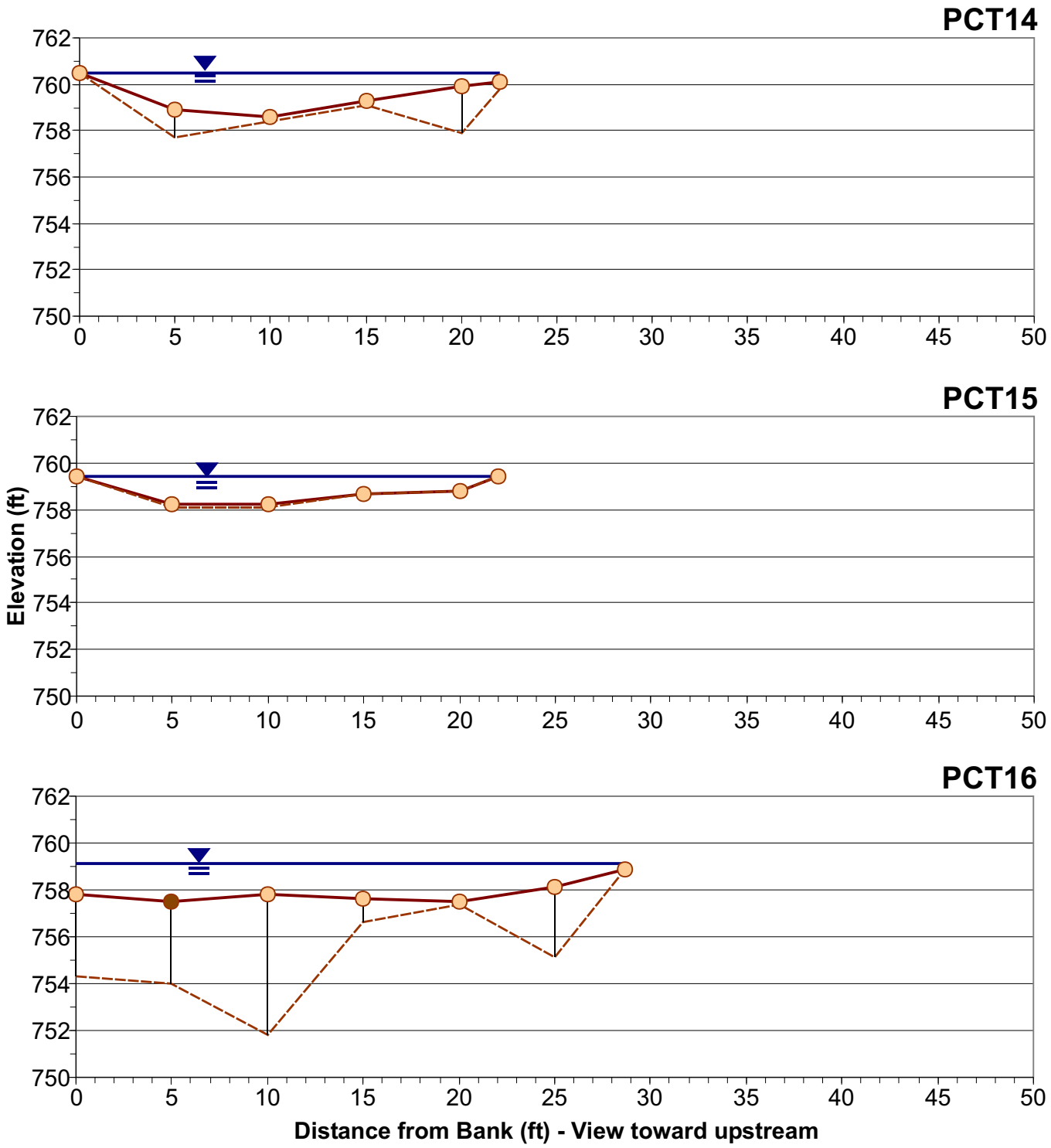
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT11 - PCT13

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G04.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

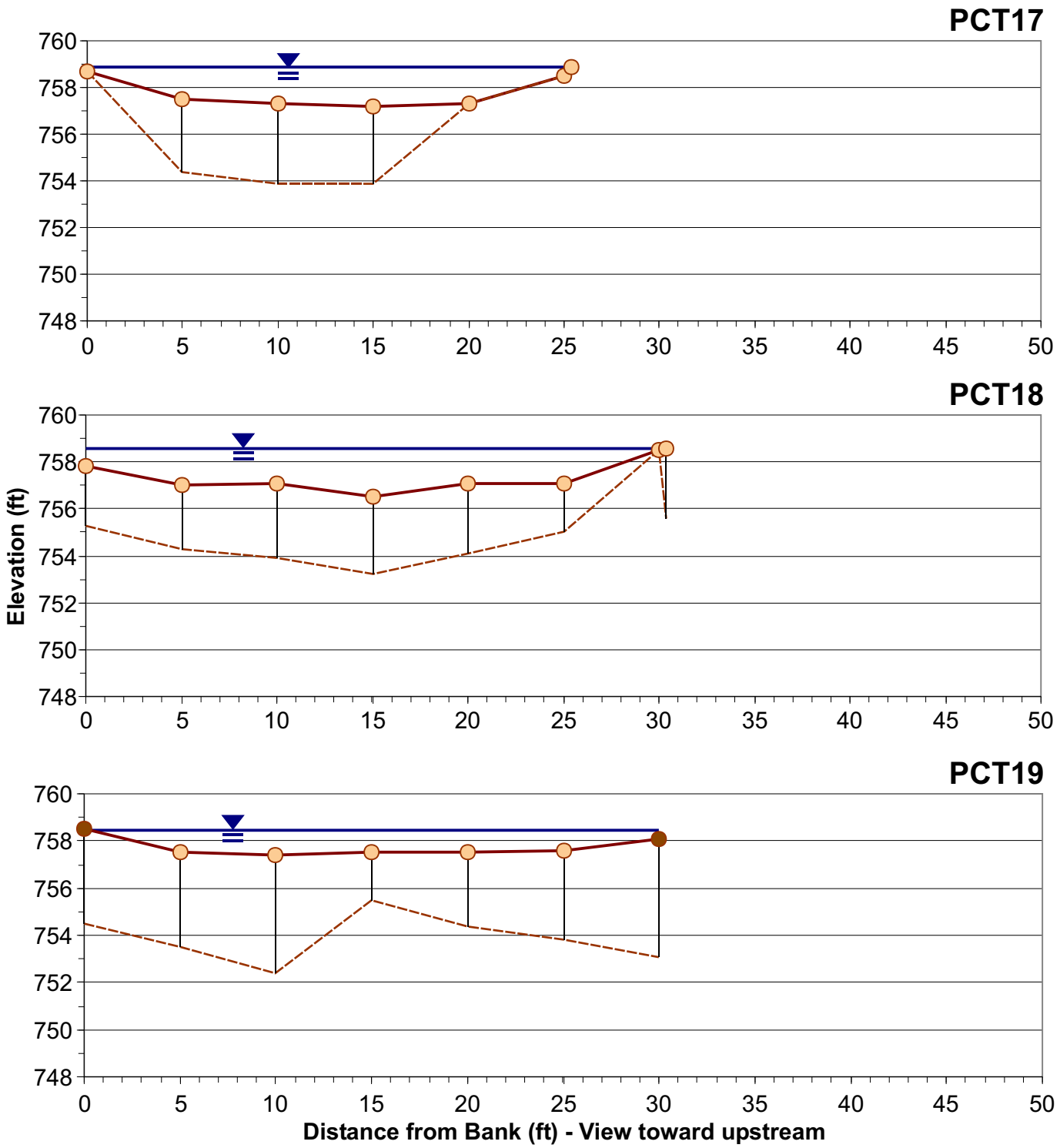
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT14 - PCT16

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G05.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

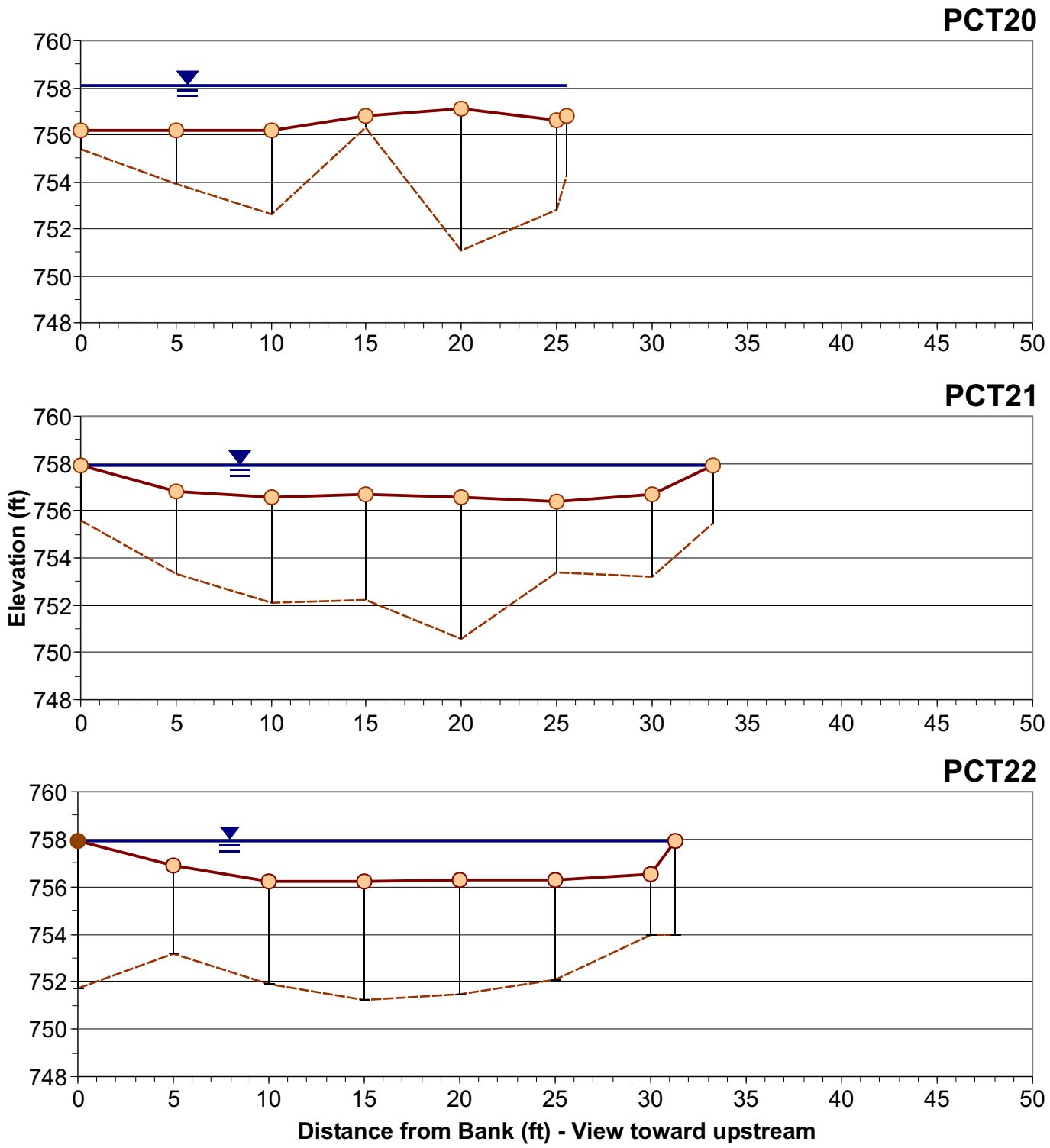
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT17 - PCT19

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G06.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

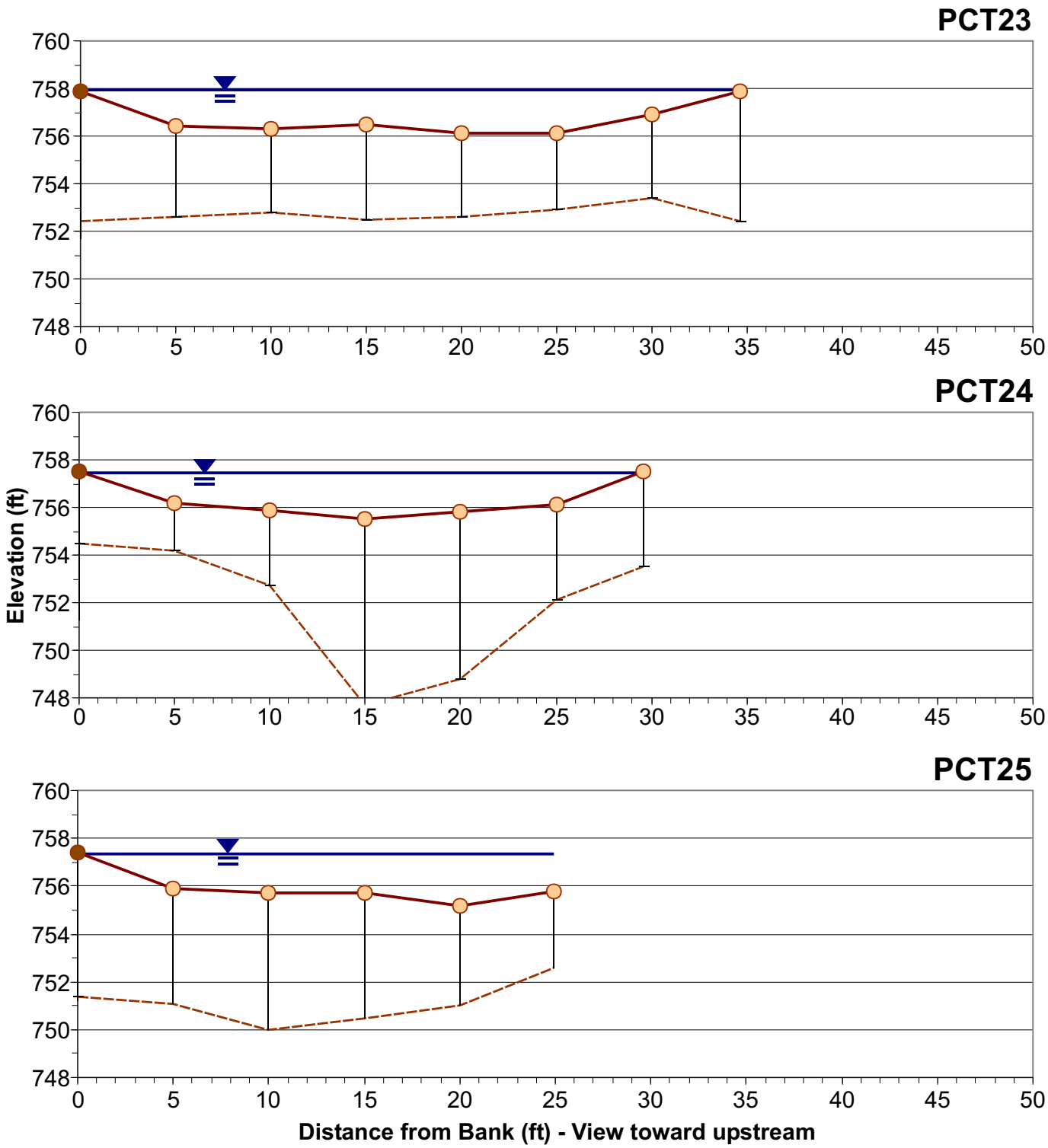
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT20 - PCT22

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G07.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

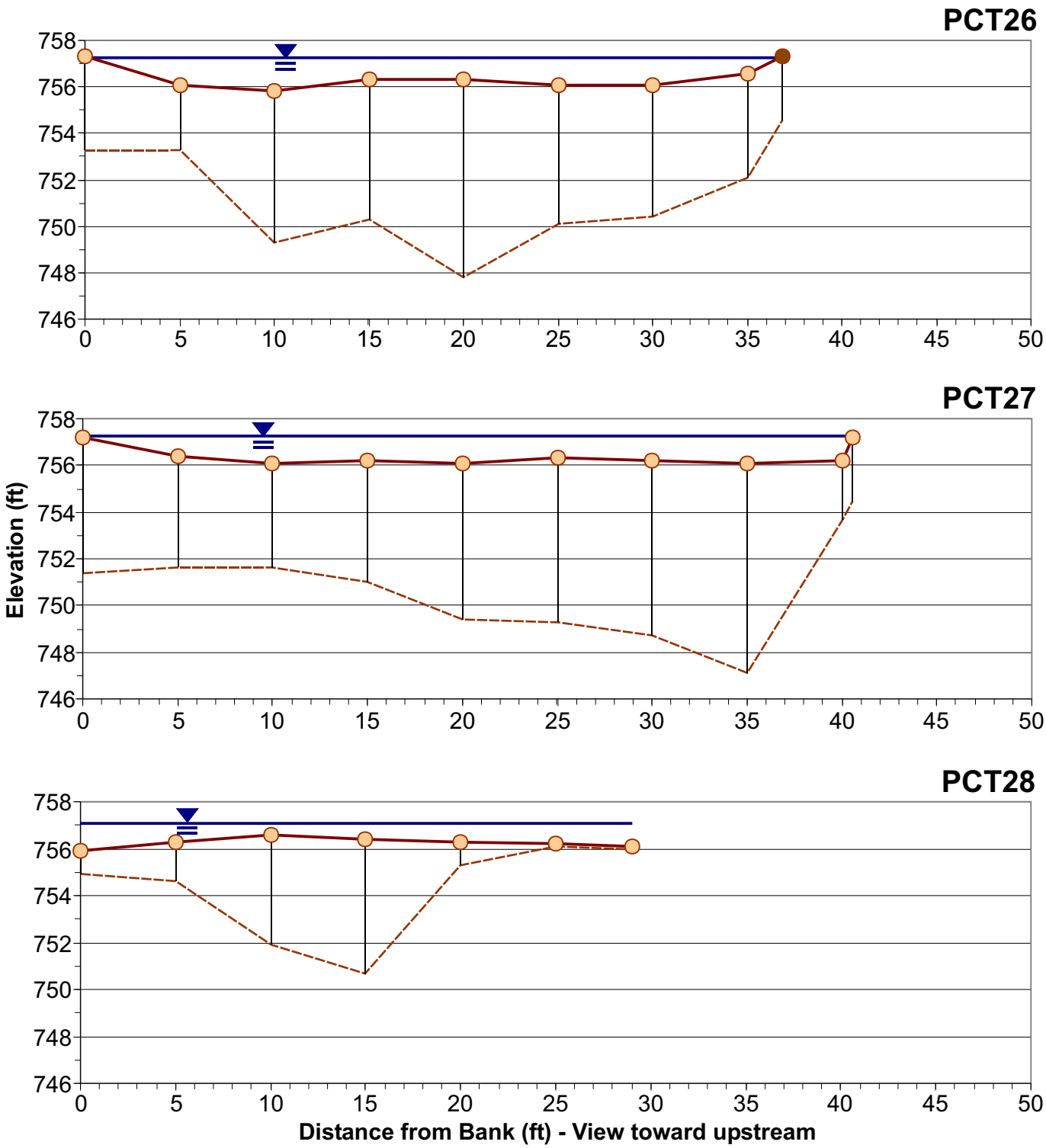
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT23 - PCT25

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G08.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

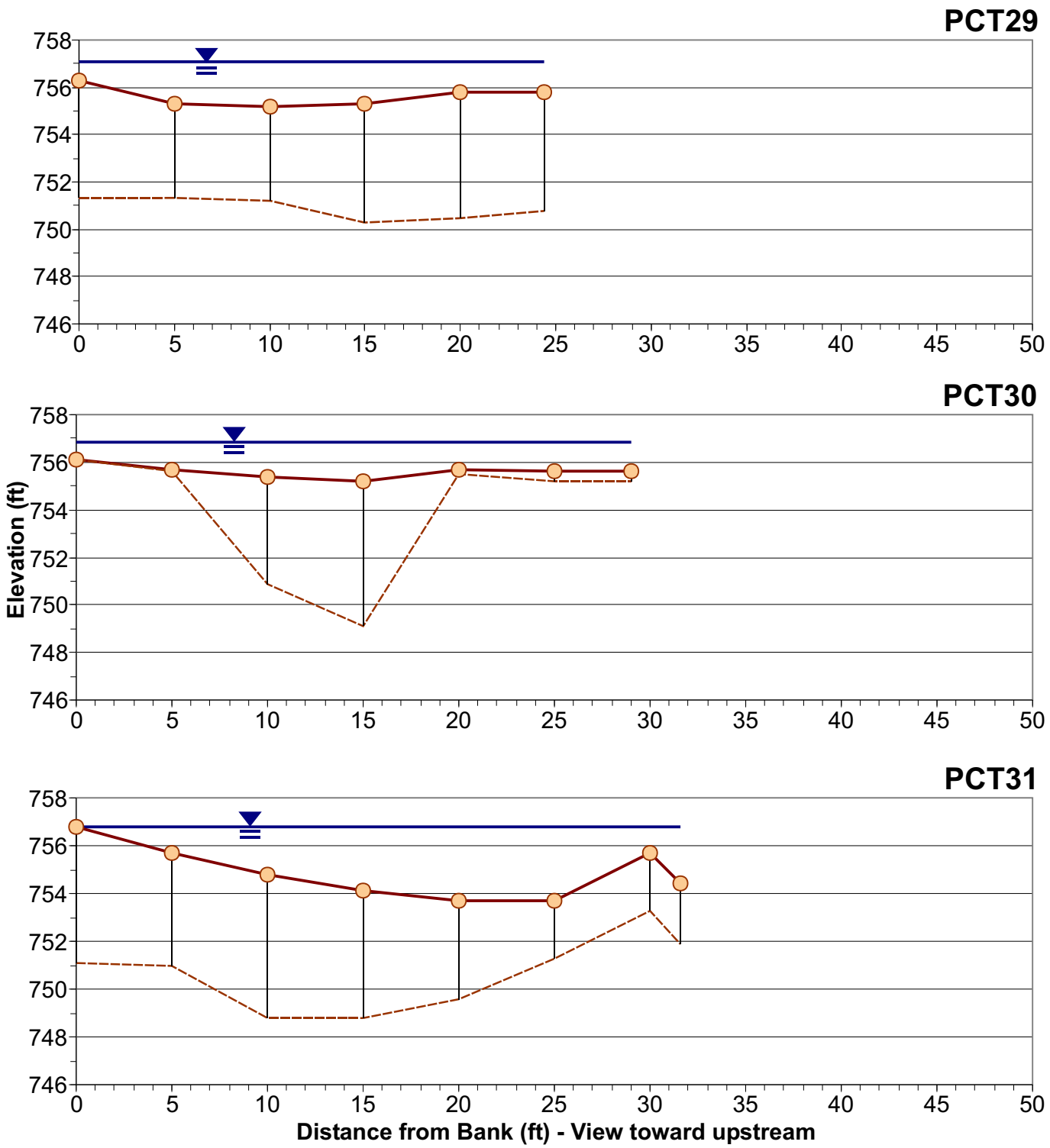
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT26 - PCT28

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G09.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

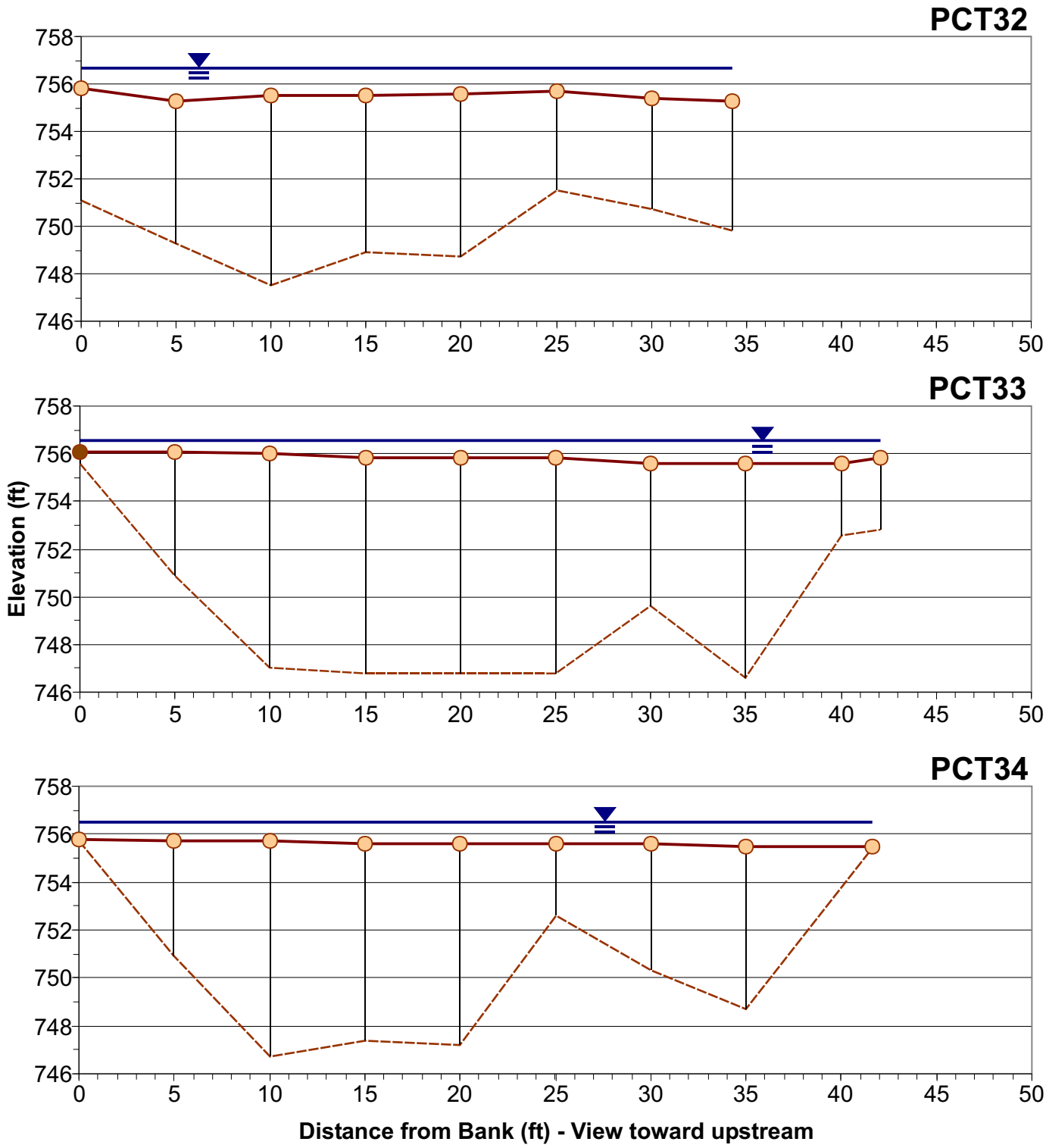
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT29 - PCT31

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G10.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

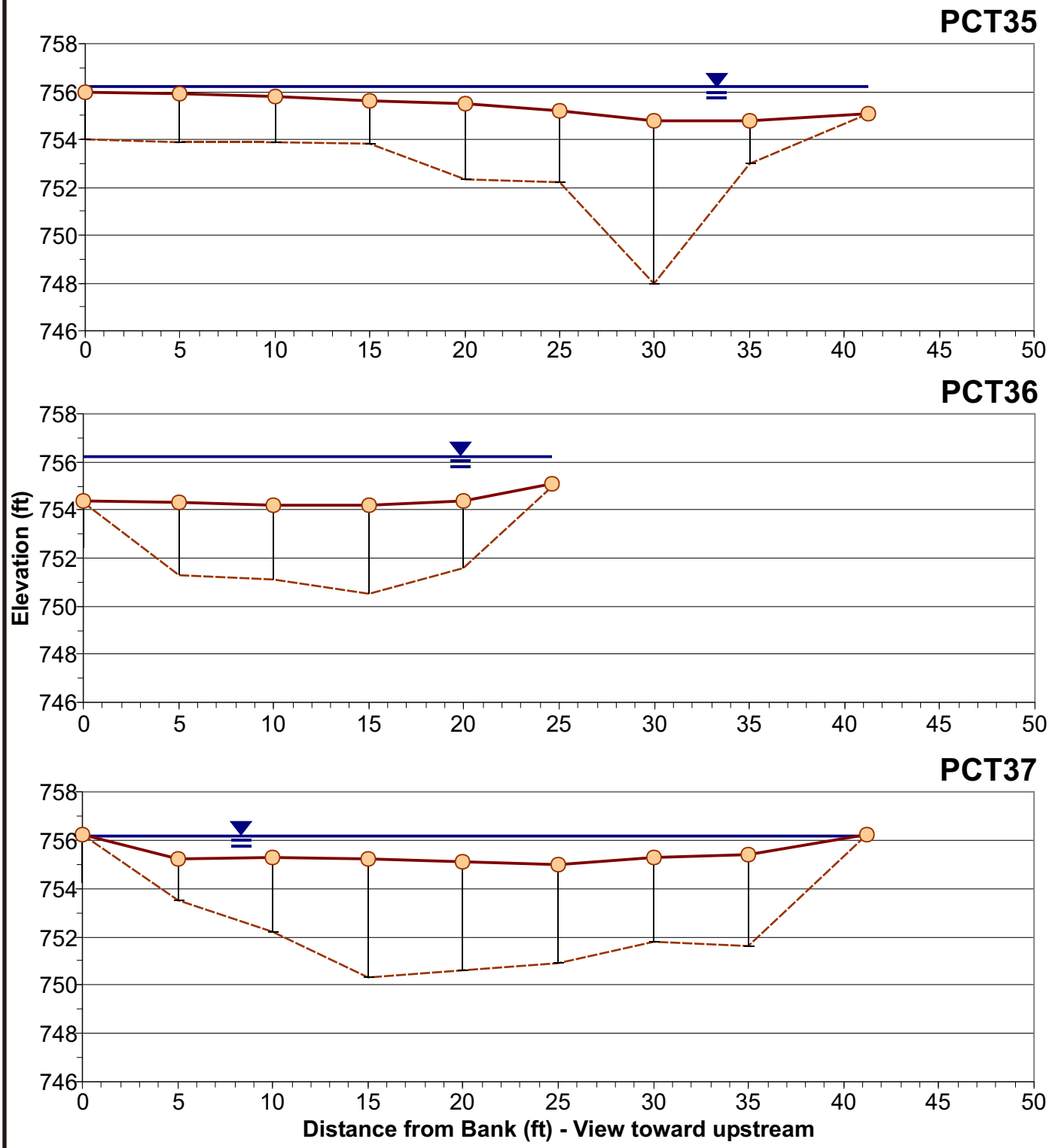
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT32 - PCT34

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G11.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

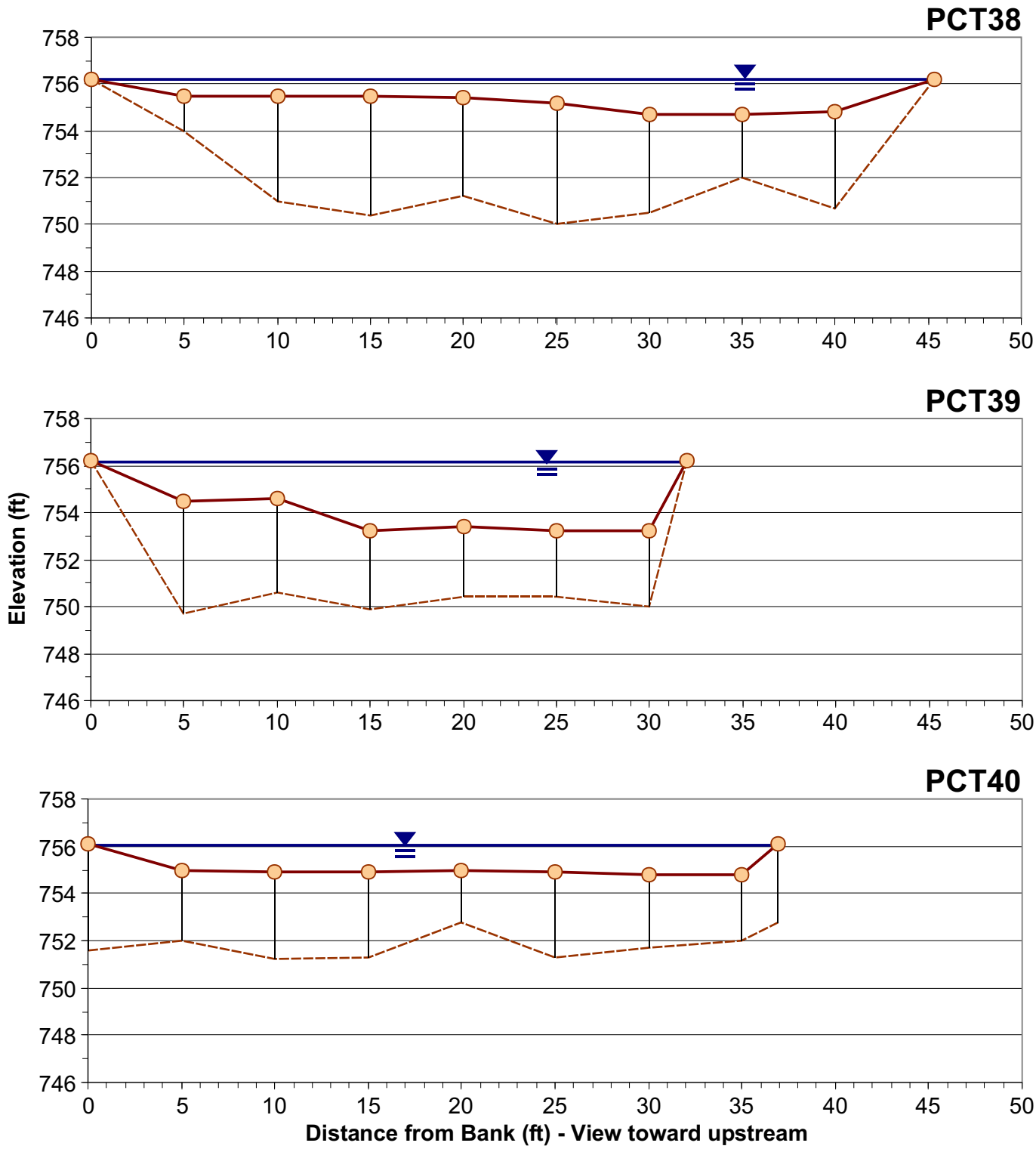
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PTC35 - PTC37

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G12.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

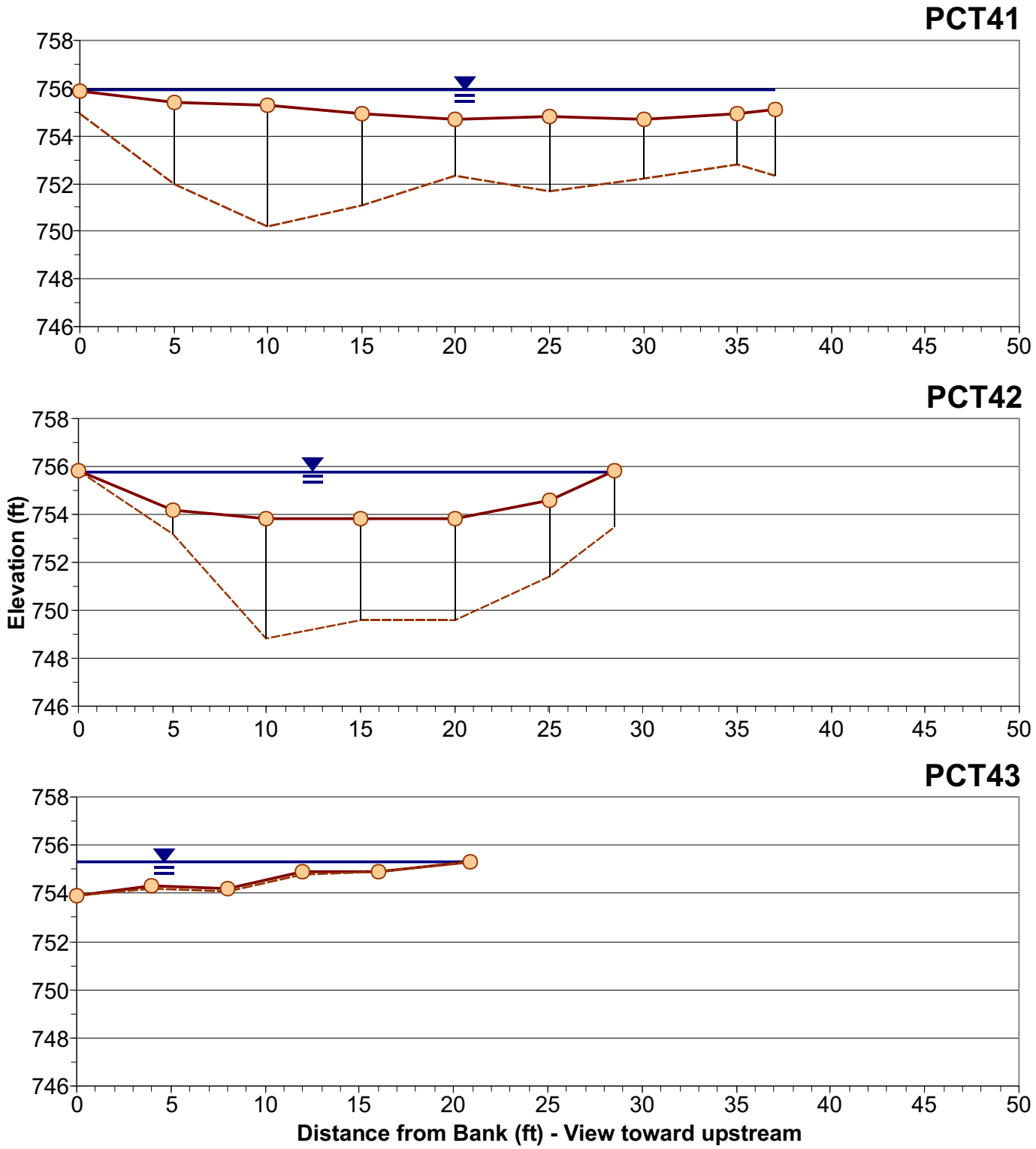
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT38 - PCT40

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G13.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

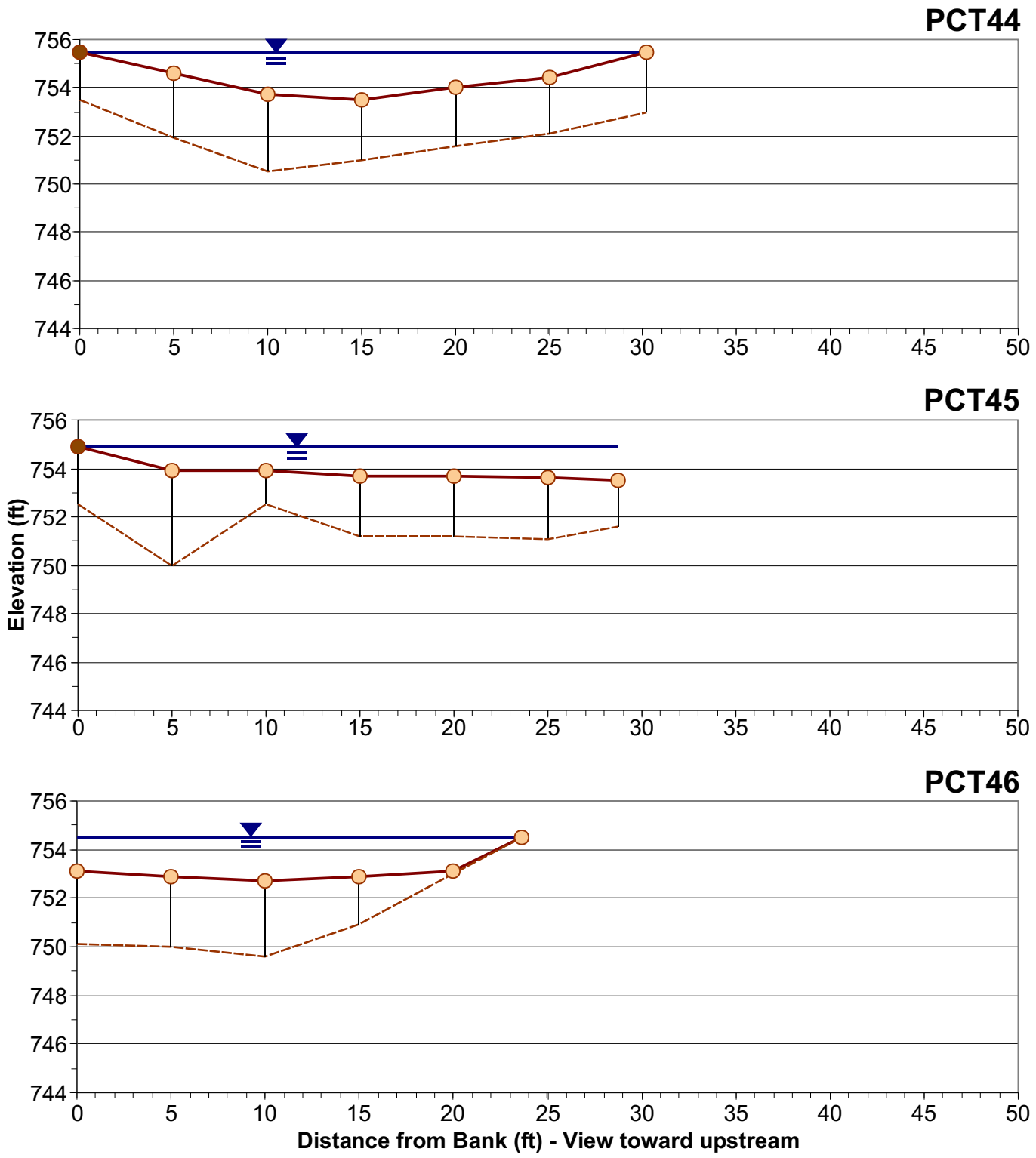
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT41 - PCT43

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G14.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

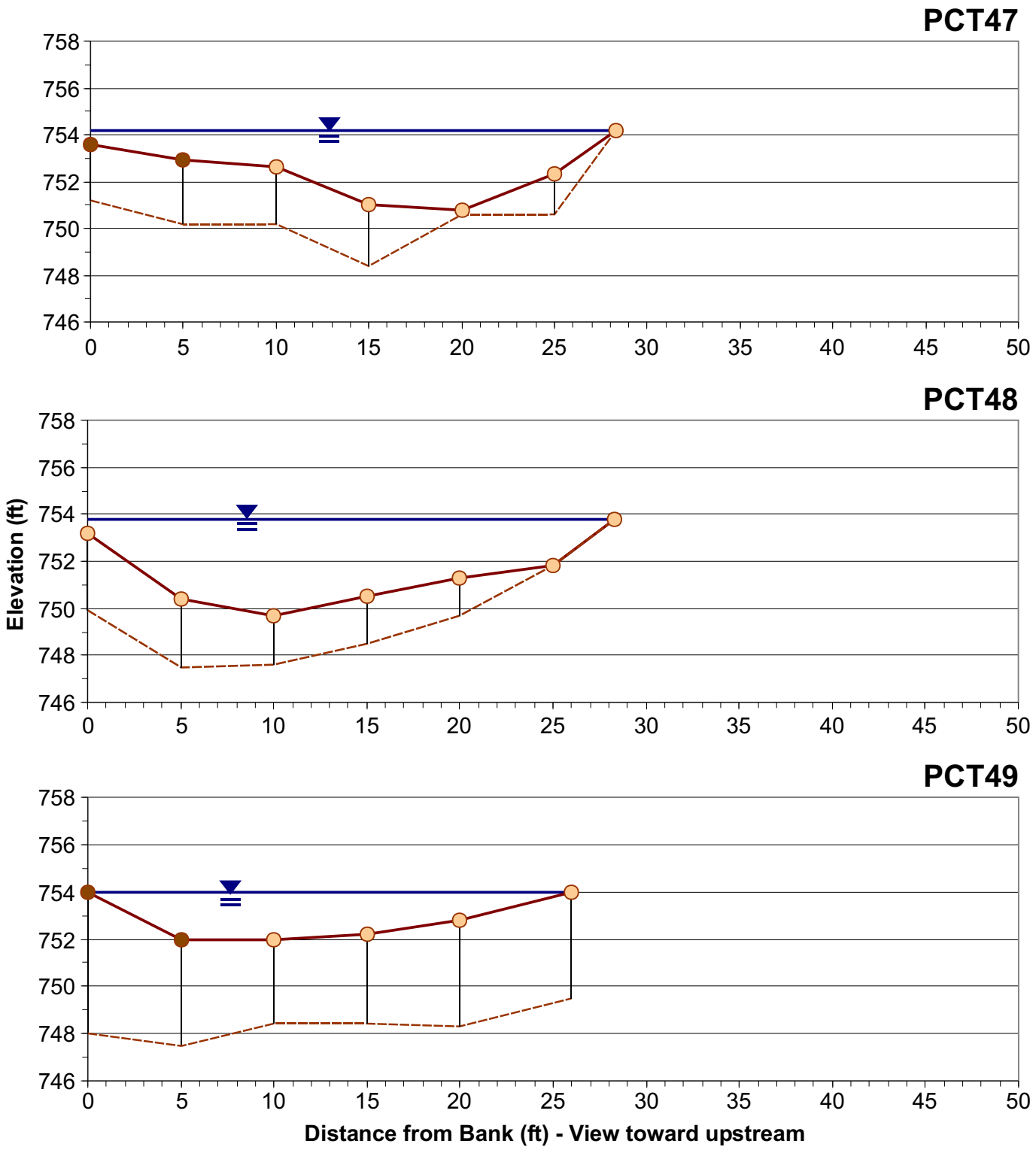
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT44 - PCT46

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G15.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

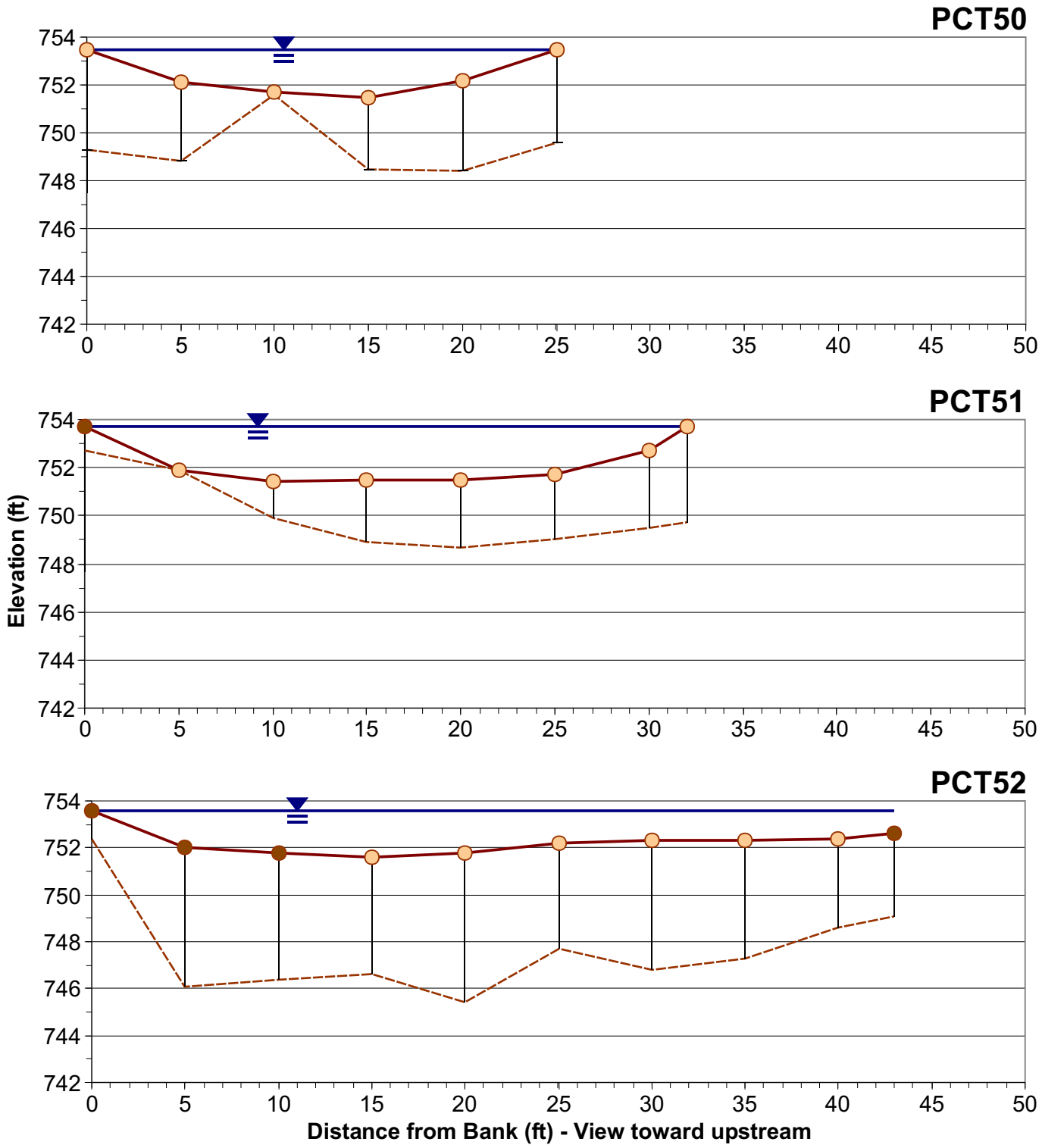
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT47 - PCT49

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G16.CDR



LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

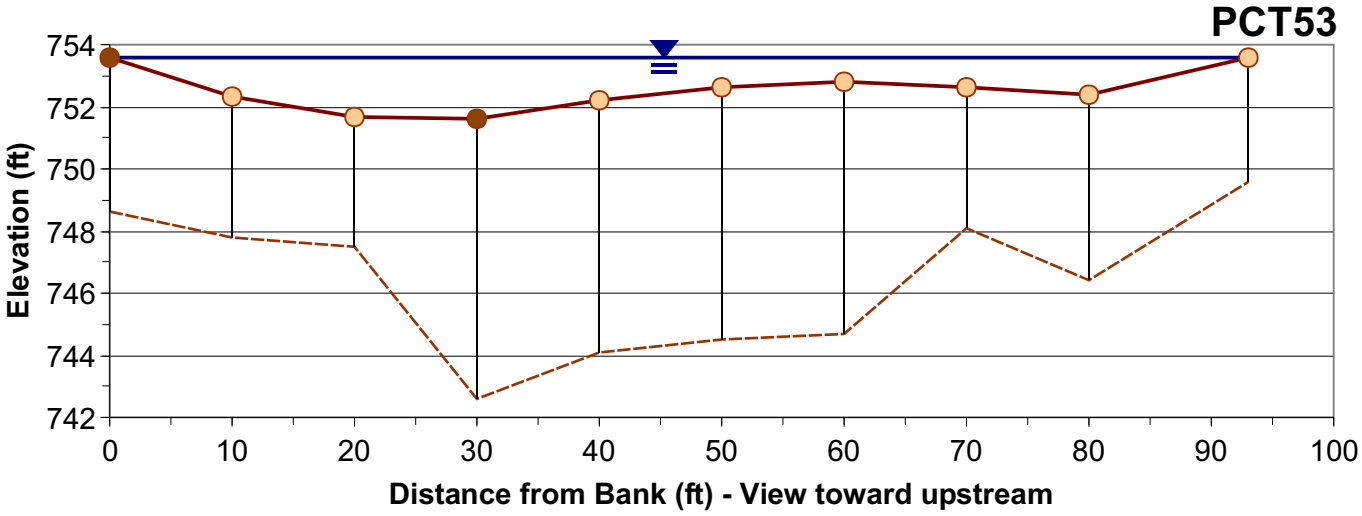
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT50 - PCT52

ARCADIS

APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G17.CDR



NOTE:
The horizontal scale used on this transect is twice as large (100 ft vs. 50 ft) as that used on all other Portage Creek transects.

LEGEND:

- Water Surface Elevation
- Bottom of Sediment
- Sediment Surface Elevation
- Coarse Sediment Location
- Fine Sediment Location

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

PORTAGE CREEK TRANSECTS
PCT53

ARCADIS

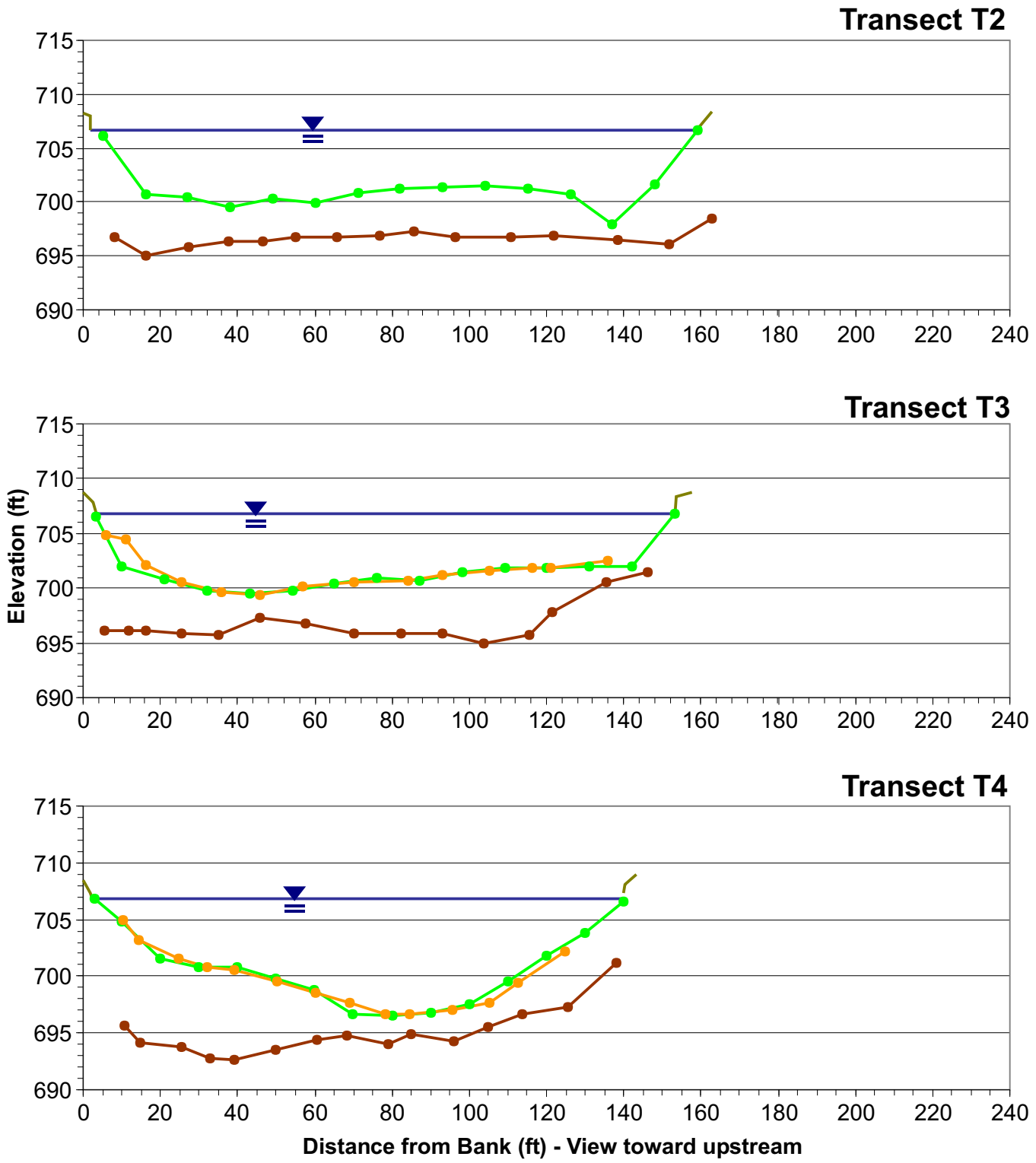
APPENDIX
D

01/23/08 SYR-D85-DJH
B0064552/0000/00500/CDR/64552G18.CDR

ARCADIS

Appendix E

Former Plainwell Impoundment Channel Cross-Sections at USGS Transects



LEGEND:

- 2007 Water Surface Elevation
- 2006 Sediment Surface Elevation
- 2007 Sediment Surface Elevation
- Bottom of Sediment based on USGS data, 2000
- 2007 Bank

NOTE:
Edge of water locations on transects may not line up due to variations in the field and field conditions during sampling.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

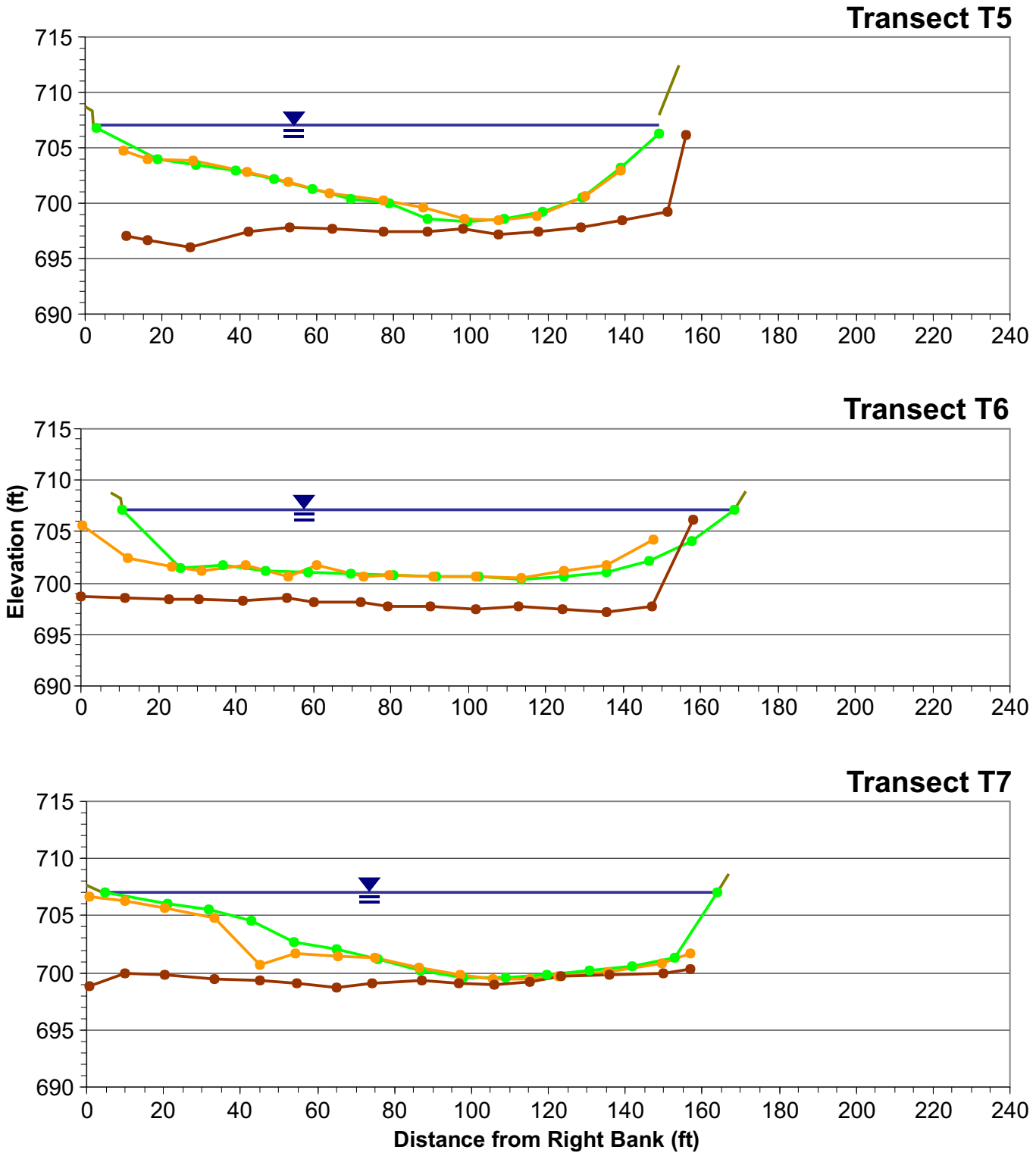
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

FORMER PLAINWELL IMPOUNDMENT CHANNEL CROSS SECTIONS AT USGS TRANSECTS T2 - T4

ARCADIS

APPENDIX
E

02/11/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G01.CDR



LEGEND:

- 2007 Water Surface Elevation
- 2006 Sediment Surface Elevation
- 2007 Sediment Surface Elevation
- Bottom of Sediment based on USGS data, 2000
- 2007 Bank

NOTE:
Edge of water locations on transects may not line up due to variations in the field and field conditions during sampling.

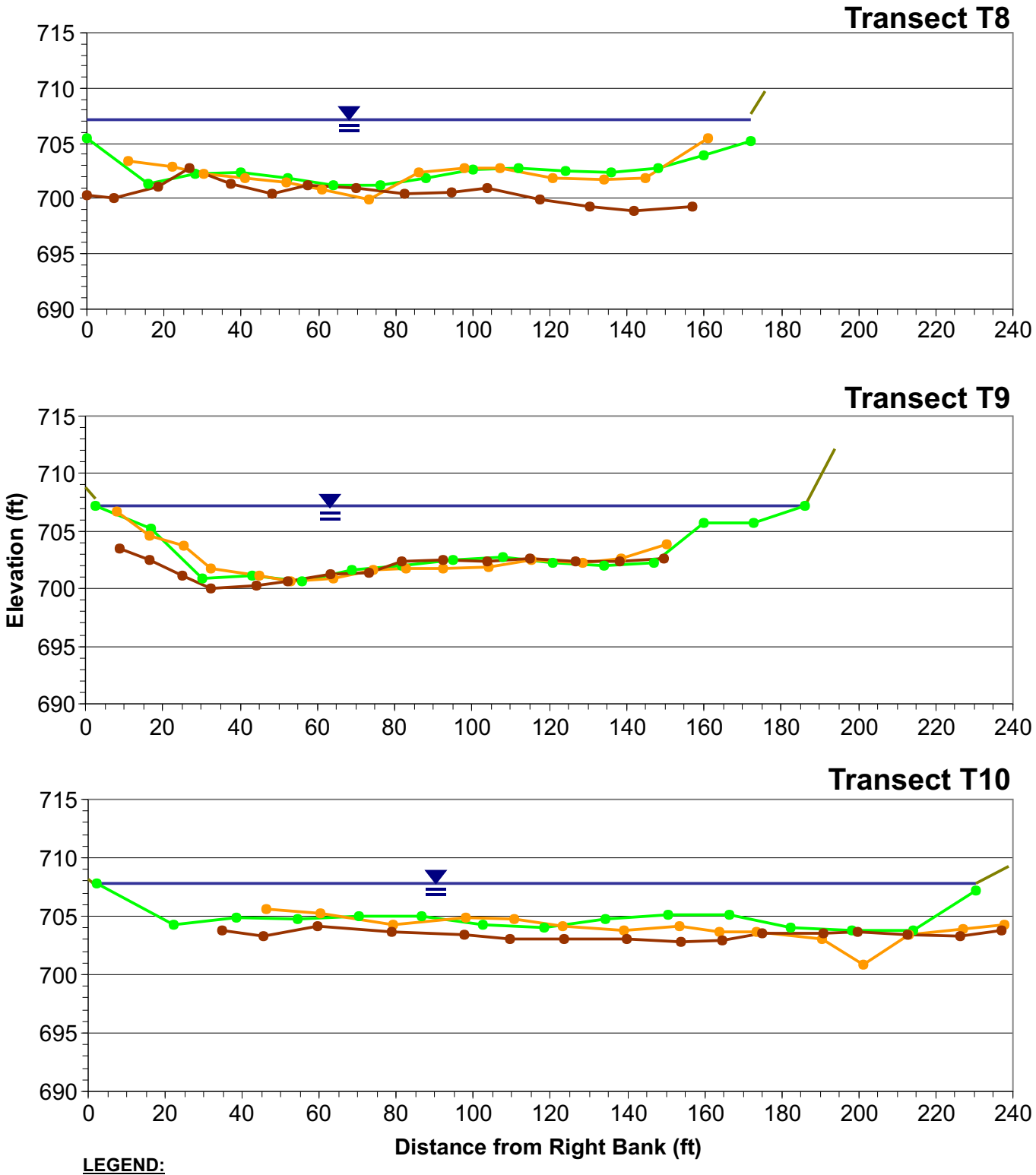
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

FORMER PLAINWELL IMPOUNDMENT CHANNEL CROSS SECTIONS AT USGS TRANSECTS T5 - T7

ARCADIS

APPENDIX
E

01/31/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G02.CDR



LEGEND:

- 2007 Water Surface Elevation
- 2006 Sediment Surface Elevation
- 2007 Sediment Surface Elevation
- Bottom of Sediment based on USGS data, 2000
- 2007 Bank

NOTE:
Edge of water locations on transects may not line up due to variations in the field and field conditions during sampling.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE

KALAMAZOO RIVER AREA 1 SRI
PHASE 1 DATA REPORT

FORMER PLAINWELL IMPOUNDMENT CHANNEL CROSS SECTIONS AT USGS TRANSECTS T8 - T10

ARCADIS

APPENDIX
E

01/31/08 SYR-D85-DJH
B0064524/0000/00500/CDR/64524G03.CDR