

# PORTAGE CREEK AREA

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

2011 - 2014

*Kalamazoo, Michigan*



United States Environmental Protection Agency  
Superfund Division, Region 5

February 2016



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**REMOVAL SUMMARY REPORT  
FOR  
PORTAGE CREEK AREA SITE  
KALAMAZOO, KALAMAZOO COUNTY, MICHIGAN**

**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
Superfund Division  
77 West Jackson Boulevard (SE-5J)  
Chicago, IL 60604

February 2016



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**Appendix A** – Slope Area 7 Report

**Appendix B** – Slope Area 6 Report

**Appendix C** – Slope Area 5-D Report

**Appendix D** – Axtell Creek Report

**Appendix E** – Slope Area 5-C Report

**Appendix F** – Slope Area 5-A Report

**Appendix G** – Slope Area 3-A Report

**Appendix H** – Slope Area 1-C and Slope Area 1-B Report

**Appendix I** – Slope Area 1-A Report

**Appendix J** - Command Post / John St Staging Area Photographic Log



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## ACRONYMS AND ABBREVIATIONS

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bgs	below ground surface
bss	Below sediment surface
CFR	<i>Code of Federal Regulations</i>
CIH	Certified Industrial Hygienist
CQCP	Construction Quality Control Plan
dBA	Decibel on the A-weighted scale
DMP	Debris Management Plan
EPA	U. S. Environmental Protection Agency
EQM	Environmental Quality Management, Inc.
ERRS	Emergency and Rapid Response Services
ERT	Emergency Response Team
FAST	FIELDS Assessment and Sampling Tool
FIELDS	Field Environmental Decision Support Team
FSP	Field Sampling Plan
ft	Feet
ft <sup>2</sup>	Square feet
GIS	Geographic information system
GPS	Global positioning system
HASP	Health and Safety Plan
ID	Identification
HDPE	High-density polyethylene
J	Estimated result
JSSA	John Street Staging Area
MDEQ	Michigan Department of Environmental Quality
MDNR	Michigan Department of Natural Resources
mg/kg	Milligram per kilogram
mg/m <sup>3</sup>	Milligram per cubic meter
MSU	Michigan State University
NA	Not applicable
NOAA	National Oceanic and Atmospheric Administration
NRDA	National Resource Damage Assessment
OSC	On-scene Coordinator

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## ACRONYMS AND ABBREVIATIONS (CONTINUED)

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OSHA	Occupational Safety and Health Administration
PAH	Poly-nuclear aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PDR	Personal DataRAM
PEL	Permissible Exposure Limit
PVC	Polyvinyl chloride
QA	Quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality control
R	Result rejected
RBSL	Risk Based Screening Level
RCRA	Resource Conservation and Recovery Act
RTK	Real Time Kinematic
SA	Slope Area
SESC	Soil Erosion & Sedimentation Control Plan
SHSO	Site Health and Safety Officer
SRD	Substantive Requirements Document
START	Superfund Technical Assessment and Response Team
SVOC	Semi-volatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TCP	Traffic Control Plan
TCRA	Time-critical removal action
TIN	Triangular irregular network
TM	Technical Memorandum
TSCA	Toxic Substances Control Act
TSS	Total suspended solids
TWA	Time-weighted average
U	Undetected at specified reporting limit
µg/kg	Microgram per kilogram



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## ACRONYMS AND ABBREVIATIONS (CONTINUED)

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UJ	Undetected at specified estimated reporting limit
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile organic compound
WWTP	Wastewater treatment plant
yd <sup>3</sup>	cubic yard

# **1. INTRODUCTION**

## **1.1 SITE DESCRIPTION**

The Portage Creek Area Site (“the Site”) is located in Kalamazoo, Kalamazoo County, Michigan (**Figure 1**), and was pervasively contaminated with polychlorinated biphenyls (PCB). The PCB contamination primarily originated from historic waste practices associated paper mill(s) located in the Kalamazoo area. The Site is part of the overall Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site, which was listed on the National Priorities List on August 30, 1990, and includes four disposal areas, five former paper mill properties, an approximately 80-mile stretch of the Kalamazoo River from Morrow Dam to Lake Michigan, and a 3-mile stretch of Portage Creek.

The removal actions related to the Site required three construction seasons to complete and resulted in the removal of approximately 24,500 cubic yards (yd<sup>3</sup>) of waste material containing approximately 777 pounds of PCBs from designated ‘slope areas’ (defined in Section 1.3.1 and shown on Figure 2) in Portage Creek.

## **1.2 REPORT ORGANIZATION**

This report consists of the following sections:

- Section 1, Introduction
- Section 2, Health and Safety
- Section 3, Staging Pad and General Removal Operations
- Section 4, Sampling
- Section 5, Slope Area-Specific Removal Activities
- Section 6, Disposal
- Section 7, Government Coordination and Public Outreach

Tables and figures are provided after Section 7. In addition, this report contains the following appendices that provide details summarizing removal activities in each slope area (SA):

- Appendix A – SA7 Report
- Appendix B – SA6 Report

- Appendix C – SA5-D Report
- Appendix D – Axtell Creek Report
- Appendix E – SA5-C Report
- Appendix F – SA5-A Report
- Appendix G – SA3-A Report
- Appendix H – SA1-C and SA1-B Report
- Appendix I – SA1-A Report
- Appendix J – Command Post / John St Staging Area Photographic Log

### **1.3 PREVIOUS INVESTIGATIONS**

From the 1950s to the mid-1970s, industrial and wastewater treatment practices (i.e., paper mill processing and de-inking of carbonless copy paper containing PCBs) released PCBs into the Kalamazoo River and Portage Creek. These PCBs were deposited in a stretch of Portage Creek that extended north from East Alcott Street to the confluence of Portage Creek and the Kalamazoo River.

After the federal ban on the production of PCBs in 1976, the use of PCBs in the production of carbonless copy paper ended. However, because of the persistent and toxic nature of PCBs in the environment and their ability to accumulate in the tissues of wildlife, several investigations were conducted from 1990 to 2006 to determine the level of contamination present in sediment and soil in the Kalamazoo River and in Portage Creek.

Numerous reports regarding the PCB contamination in Portage Creek summarize investigations conducted in the creek since 1990 and the historic core data obtained from these investigations. Twenty-nine samples from the Portage Creek Area (from East Alcott Street to its confluence point with the Kalamazoo River) contained PCBs at concentrations greater than 50 milligrams per kilogram (mg/kg) in samples collected 0 to 44 inches below the creek bed. Nearly half of the samples containing more than 50 mg/kg PCBs were collected adjacent to the Upjohn Park recreational area. The highest PCB result for the Portage Creek Area was 590 mg/kg in a sample adjacent to Upjohn Park.

In early November 2010, the Michigan Department of Natural Resources and Environment



collected 80 sediment and floodplain soil samples from the Portage Creek Area. These sediment samples were collected from the creek surface to approximately 80 inches below sediment surface (bss). The PCB concentrations in the sediment samples ranged from non-detect to 590 mg/kg. The PCB concentrations in the floodplain soil samples, which were collected from 0 to approximately 36 inches below ground surface (bgs), ranged from 0.26 to 72.0 mg/kg.

### 1.3.1 EPA Action

From August 2011 to July 2014, the United States Environmental Protection Agency (EPA) conducted a time-critical removal action (TCRA) to address contamination in Portage Creek by removing PCB contaminated sediments from targeted, high-priority areas within Portage Creek and adjacent floodplains. The TCRA focused on the following nine SAs extending from Reed Street to the confluence of Portage Creek and the Kalamazoo River (**Figure 2**):

- **SA7** – Floodplain area north of Reed St. and south of Stockbridge Ave. (Appendix A)
- **SA6** – Stockbridge Ave. to Lake St. (Appendix B)
- **SA5-D** – Lake St. to Crosstown Parkway (Appendix C)
- **Axtell Creek** – John St. to Portage Creek (Appendix D)
- **SA5-C** – Crosstown Parkway to Vine St. (Appendix E)
- **SA5-A** – Dutton St. to Walnut St. (Appendix F)
- **SA3-A** – Between Pitcher St. and Rochester Ave. (Appendix G)
- **SA1-C & SA1-B** - Between Rochester Ave. and East Michigan Ave. (Appendix H)
- **SA1-A** – East Michigan Ave. to Kalamazoo River (Appendix I)

Prior to removal activities, EPA, Superfund Technical Assessment and Response Team (START), and Emergency and Rapid Response Services (ERRS) contractor [Environmental Quality Management, Inc. (EQM)] developed the following planning documents:

- **Health and Safety Plan (HASP):** The HASP presents requirements developed to protect on-site personnel, visitors, and the public from exposure to contaminated materials and physical injury.
- **Quality Assurance Project Plan (QAPP):** The QAPP describes quality assurance (QA), quality control (QC), and other technical activities that EPA, START, and ERRS contractor implemented to ensure that the results of the work performed satisfied performance standard goals.

- Field Sampling Plan (FSP): The FSP provides detailed procedures related to the collection, shipment, and analysis of all samples collected.
- Technical Memoranda (TM): The TMs provide pertinent technical and procedural information for each SA excavated.
- Debris Management Plan (DMP): The DMP provides procedures for the proper management, disposal, and reuse or recycling of debris (e.g., vegetation, steel, plastic, concrete, wood, and synthetic materials) generated during site activities.
- Sediment Erosion and Sedimentation Control Plan (SESC): This plan covers the approaches and tactics used to prevent erosion and sedimentation during the excavation activities.
- Traffic Control Plan (TCP): The purpose of the TCP was to maintain public safety by minimizing the impact of Site-related truck traffic on local traffic.
- Restoration Plan: The Restoration Plan covers the restoration of disturbed areas to pre-construction conditions.

## **2. HEALTH AND SAFETY**

### **2.1 HASP**

The HASP presents health and safety requirements developed to protect on-site personnel, visitors, and the public from exposure to contaminated materials and physical injury. The procedures were based on the initially planned scope of work, and were revised when necessary.

The HASP procedures were mandatory for all ERRS contractor and subcontractor personnel as well as other individuals that read and signed the HASP (i.e., EPA and START personnel). Other contractors had the option of mandating health and safety measures for their employees that went beyond the minimum requirements specified in the HASP.

ERRS, EPA, and START performed all work in accordance with applicable Occupational Safety and Health Administration (OSHA) requirements at Title 29 of the *Code of Federal Regulations* (CFR) Parts 1910 and 1926, Health and Safety Regulations, specifically 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, and ERRS 's Corporate Health and Safety Program.

## **2.2 DAILY BRIEFINGS**

Prior to work activities, ERRS Response Manager conducted a daily health and safety briefing with all Site project personnel. These briefings provided information from the HASP and other pertinent resources (e.g., weather information) to assist workers in safely performing work. These briefings also addressed potential chemical, physical, and biological hazards present related to the planned work activities and to ensure preventive safety measures. The briefings heightened awareness of potential hazards, provided an opportunity for workers to provide feedback, and provided an opportunity to discuss safety and health-related deficiencies.

## **2.3 AIR MONITORING, SCREENING LEVELS, AND EXCEEDANCES**

During the course of the removal activities, ERRS and START used personal DataRAM (PDR) and DataRAM 4000 air monitoring instruments to assess employee exposure to airborne particulates and protect the public from off-site migration of dust. The OSHA Permissible Exposure Limit (PEL) time-weighted average (TWA) is 0.5 milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ). As stated in the Action Memorandum, levels of PCBs measured in Portage Creek sediments and soils ranged from non-detect to 590  $\text{mg}/\text{kg}$  and 0.26 to 72  $\text{mg}/\text{kg}$ , respectively. An Action Level of 0.25  $\text{mg}/\text{m}^3$  was established for airborne particulates (dust), with the OSHA PEL – TWA being 0.5  $\text{mg}/\text{m}^3$ . Based on the maximum sediment concentration of 590  $\text{mg}/\text{kg}$  of PCBs, the level of airborne particulates would need to be more than 420  $\text{mg}/\text{m}^3$ , averaged over an 8-hour period, to exceed the 0.25  $\text{mg}/\text{m}^3$  action level.

During the 2012 construction season, START used one PDR to conduct perimeter monitoring at 8 locations around the John Street Staging Area (JSSA) and a second unit at the active removal area. During the 2013 construction season, START used one DataRAM at the JSSA and another at the active removal area. The DataRAM units were used in conjunction with EPA Environmental Response Team's wireless data communication software VIPER Survey Controller. The DataRAM units measured real-time dust emissions and transmitted the results to a host computer located at the JSSA command post. Transmitted data then were uploaded to an off-site Environmental Response Team (ERT) server database.

During each monitoring run, START placed the PDR or DataRAM units downwind of work activities and moved the PDR or DataRAM units to new locations if the wind changed direction.

If the readings exceeded  $0.25 \text{ mg/m}^3$  (250 micrograms per cubic meter), then ERRS instituted engineering controls, such as the use of a water truck or a street sweeper to brush soil away from the path of trucks.

## **2.4 NOISE MONITORING**

Noise was a potential hazard in areas where heavy equipment, power tools, pumps, and generators were in operation. Equipment operation had the potential of producing noise levels that equaled or exceeded 85 decibels on the A-weighted scale (dBA), the action level established by OSHA. In addition, EPA sought to comply with a local ordinance limiting noise levels in residential areas.

START monitored noise levels using a hand held sound level meter near the by-pass and isolation dewatering pumps during removal activities adjacent to residences or businesses. Action levels used during these monitoring rounds were 75 dBA during the day and 70 dBA during the night.

ERRS's Site Health and Safety Officer (SHSO) ensured that hearing protection was available when noise levels exceeded the action level. Hearing protection typically involved the use of disposable earplugs during activities that produced excessive noise.

## **2.5 PERSONNEL MONITORING**

The ERRS SHSO collected personal air samples using SKC Sidekick 52 personal air sampling pumps attached to Florisil glass tubes to assess potential air contaminant exposures experienced by ERRS contractor employees and subcontractors. The SHSO collected the samples under the direction of a Certified Industrial Hygienist (CIH).

# **3. STAGING PAD AND GENERAL REMOVAL OPERATIONS**

## **3.1 REMOVAL TEAM**

The removal team consisted of EPA, START, ERRS, subcontractors, and the project laboratories. The removal team members and their responsibilities are discussed below.

## ***EPA***

EPA On-scene Coordinators (OSCs) assumed overall project authority and directed START and ERRS on tasks required to meet project objectives. OSCs also were responsible for reviewing and approving all technical documents prior to implementation. OSCs developed bi-weekly Pollution Reports that summarized all field activities, costs, field data, and laboratory results from the reporting period along with the proposed activities for the next reporting period.

EPA Field Environmental Decision Support Team (FIELDS) provided Site characterization and monitoring support. FIELDS personnel used geographic information systems (GIS), global positioning systems (GPS), and customized computer software tools, including the FIELDS Assessment and Sampling Tool (FAST) and ArcGIS. Additionally, FIELDS personnel assisted in implementing the VIPER system for real-time particulate monitoring on Site. Specific activities undertaken by FIELDS included:

- Pre-excavation bathymetric surveys to provide creek bottom topography and overall creek dimensions from top-of-bank points to the creek bottom;
- Random node-point generation within each removal grid to avoid biased sample collection;
- Post-excavation bathymetric surveys to confirm that backfilling activities in each SA had restored the creek to pre-excavation elevation levels; and
- Calculation of total volume and mass of total contaminated sediments and PCBs removed.

In addition, FIELDS also created triangular irregular network (TIN) files for each SA (except SA7). Excavator operators used these TIN files in conjunction with control points established by FIELDS to ensure excavation to the appropriate depth within each removal grid.

## ***START***

The START team consisted of a Project Manager, a QA officer, a Health and Safety Officer and a Site Leader. The START Project Manager managed Weston Solutions, Inc., project personnel and subcontractors. The Project Manager worked directly with the OSCs and START Site Leader on various START-related project tasks.

The START QA Officer reviewed the QAPP and had overall responsibility for START project QA. The QA Officer also performed a compliance check of validated data.



The START Health and Safety Officer approved the HASP and provided guidance to START field personnel on health and safety issues.

The START Site Leader managed all START work performed in the field. The Site Leader worked directly with the OSCs and the START project manager regarding field tasks and any issues that arose in the field.

### ***ERRS***

The ERRS Response Manager managed all removal action tasks, including subcontracting, sediment removal, and SA restoration. The ERRS Sample Management Coordinator procured the Site-related laboratories, acted as the main interface between the ERRS Removal Manager and the laboratories, coordinated sample delivery, and ensured that the laboratories performed the analyses correctly. ERRS also provided a foreman, field cost accountant, chemist, site health & safety officer (SHSO), wastewater treatment plan (WWTP) operators, heavy equipment operators, and laborers to support the project.

### ***Project Laboratories***

Project Managers from Test America, Inc., of North Canton, Ohio, and ALS Laboratories of Holland, Michigan, ensured that all laboratory tasks were performed in accordance with the QAPP.

## **3.2 STAGING PAD SETUP**

ERRS constructed a staging pad used for dewatering, sediment stabilization, and load-out of contaminated sediment in accordance with the procedures listed in Section 2 of the SA7 TM (Project Preparation, Dewatering and Staging Pad Construction). This section of the TM references a Construction Quality Control Plan (CQCP), which was not developed for this Site. The FSP, QAPP and TMs contained all information that a CQCP would have provided.

ERRS constructed the staging pad to perform the following operations:

- Receive partially solidified soil and sediment from over-the-road or off-road dump trucks for final dewatering or solidification and staging prior to off-site shipment for final disposal;
- Dewater staged soil and sediment, and recover resulting water in a collection reservoir for treatment;

- Power wash dump truck tires after the trucks had dumped sediment or been loaded with sediment for final disposal; and
- Perform controlled application of solidification material to stabilize and dry sediment for over-the-road transport to disposal facilities.

### **3.3 WASTEWATER TREATMENT**

During removal activities at the Site, ERRS operated and maintained EPA's mobile WWTP to ensure that the criteria stipulated in the Substantive Requirements Document (SRD) issued by the Michigan Department of Environmental Quality (MDEQ) to EPA on June 14, 2012 was within the discharge criteria limits. The mobile WWTP lowered the levels of PCBs, suspended solids, phosphorus, iron, and manganese in contact water collected from the following:

- Dewatering activities in certain excavation areas;
- Dewatering of excavated sediment left on the staging pad;
- Truck tire wash stations; and
- Decontamination of heavy equipment at excavation areas and the staging pad

### **3.4 GENERAL REMOVAL OPERATIONS**

#### **3.4.1 Mobilization, Site Preparation, and Site Security**

ERRS mobilized to the Site in August 2011 to begin preparing the command post and other areas needed to support excavation activities. The command post was established at 220 East Crosstown Parkway in Kalamazoo. ERRS installed perimeter chain-link fencing and three access gates to enclose the command post and staging pad area. Photographs documenting the construction of the command post and staging pad are found in Appendix J.

#### **3.4.2 Resource Procurement**

The ERRS Response Manager worked with various support personnel to identify resources needed during the Site activities. ERRS worked with a Field Cost Administrator to develop procurement specifications for resources not provided by ERRS.

Resources not provided by ERRS or its team subcontractors were procured through a competitive bid process. Items that required procurement included, but were not limited to, office trailers,

sanitation facilities, erosion control materials, sheet piling, high-density polyethylene (HDPE) piping and fittings, pump systems, and heavy and specialized equipment.

### **3.4.3 Removal of Vegetative Cover and Construction of Access Roads**

ERRS-provided contractors removed limbs, trees, and brush from SAs while ERRS constructed access roads along the banks of each SA to allow removal of contaminated sediment and soil. Access road construction also included establishment of a construction entrance, material transfer station, and access to excavation areas.

In SAs where the invasive species *Fallopia japonica* (Japanese Knotweed) was present, guidance developed by the U.S. Department of Agriculture was followed to attempt eradication using an approved glyphosate product. The identification of *Fallopia japonica* and eradication procedures were carried out in consultation with the U.S. Fish and Wildlife Service (USFWS) and Michigan Department of Agriculture.

## **3.5 SLOPE AREA-SPECIFIC REMOVAL OPERATIONS**

### **3.5.1 Pre-Excavation Sediment and Waste Characterization Sampling**

EPA, START, and ERRS collected pre-excavation sediment core samples from each SA to fill data gaps. Additionally, ERRS collected waste characterization samples for disposal facilities to identify Toxic Substances Control Act (TSCA) and non-TSCA contaminated soil and sediment.

### **3.5.2 Dewatering Pipeline Construction and By-Pass Pump Assembly**

ERRS constructed creek water by-pass and groundwater diversion pump systems in each SA (except SA7) to divert surface water and remove groundwater beneath creek sediment. The pump systems consisted of multiple 6, 12, and/or 18-inch diameter, diesel-powered pumps which drew water from sumps excavated within the creek channel. The by-pass pumps discharged through 6, 18, or 30-inch diameter discharge lines which ran along the creek banks and discharged onto rock dispersion pads back into the middle of the creek channel downstream of the SA being excavated. The groundwater diversion system consisted of multiple 6-inch diameter, diesel powered pumps which drew water from 1.5-inch PVC 'sipper' wells installed 20-25 feet bgs along the creek banks. A groundwater pump test was conducted in SA6 to assist in the design of the system. The groundwater diversion pumps discharged through 6-inch discharge lines which ran along the creek

banks and discharged onto rock dispersion pads back into the middle of the creek channel downstream of the SA being excavated. The pump systems operated 24 hours per day during excavation activities.

Following excavation of impacted sediment and restoration of the creek channel in each SA, by-pass pumps, by-pass pipelines, and groundwater diversion pipes were removed and in some cases, were reused in subsequent SAs. Additional information related to by-pass pumping systems and groundwater diversion systems used in each SA is provided in Appendices A - I.

### **3.5.3 Excavation of TSCA and non-TSCA-Contaminated Sediment**

Prior to excavation of TSCA-contaminated (PCB contamination exceeding 50 mg/kg) and non-TSCA-contaminated (PCB contamination less than 50 mg/kg) sediment, START used a geo-referenced aerial photograph downloaded to a computer equipped with GPS and FAST to stake out excavation boundaries for both TSCA and non-TSCA-contaminated sediment. To designate the location of TSCA-contaminated sediment, START placed orange stakes at upstream and downstream points of each TSCA area along both banks. Areas outside of the designated areas contained non-TSCA-contaminated sediment, and were marked with yellow stakes.

ERRS placed polyethylene plastic sheeting along creek banks to prevent the spread of contamination during excavation of both TSCA and non-TSCA-contaminated sediment.

ERRS operators directly loaded the partially saturated, excavated sediment into a mixing box filled with a drying or solidification agent. Excavated sediment that was sufficiently dry was directly loaded into trucks for transport to the JSSA.

### **3.5.4 Transportation and Disposal of TSCA- and non-TSCA-Contaminated Sediment**

Prior to the sediment removal activities, ERRS prepared disposal profiles for the facilities selected to receive TSCA-contaminated sediment (Wayne Disposal in Belleville, Michigan) and non-TSCA-contaminated sediment (C&C Landfill in Marshall, Michigan). ERRS submitted signed disposal profiles and waste characterization analytical data to these facilities and obtained generator signatures from OSCs.

As discussed in Section 3.2, ERRS typically hauled excavated sediment from each SA to the John Street staging pad, where ERRS maintained separate stockpiles of TSCA and non-TSCA-contaminated sediment.

After loading, truck drivers placed tarps over the sediment, proceeded through a tire wash station, and signed either a hazardous waste manifest for TSCA-contaminated sediment or a non-hazardous waste manifest and bill of lading for non-TSCA-contaminated sediment. After leaving the JSSA, trucks left Kalamazoo following a traffic route prescribed in the TCP.

### **3.5.5 Post-Excavation Sediment Sampling**

EPA and START collected post-excavation sediment samples (confirmation, verification, and node) in accordance with the QAPP, FSP, and TMs. Confirmation samples were collected to determine if the PCB performance standard goal was met in each grid. To collect the confirmation samples, START staked out six node points within each grid of the excavated SA, collected sediment from each discrete node point, combined sediment from each discrete node point into a six-point composite sample, and placed homogenized sediment into a labeled 4-ounce glass jar.

Initially, if confirmation grid samples met the performance standard goal of less than 1 mg/kg, ERRS began restoration activities. If a grid failed to meet the performance standard goal, ERRS excavated an additional 6 inches of sediment. EPA and START then re-sampled the previously failed grid using the six node point composite procedure. This excavation and sampling approach was followed in SA7, SA6, and Axtell Creek. Based on field experience, this approach was modified as described below for SA5-A, SA5-C, SA5-D, SA3-A, SA1-C, SA1-B, and SA1-A.

In the modified approach (reflected in amended and subsequent TMs), excavation of contaminated sediment proceeded to initial target depths specified in the TM. If visual contamination was still apparent in the grid, a “verification” sample was collected from every other grid of the SA to verify the remaining contamination. If additional excavation was warranted in a particular grid, excavation was performed until visual evidence of paper sludge or contaminated sediment was removed. At that time, a “confirmation” sample was collected from each grid. If the performance standard goal was met, backfilling operations began. If a grid failed to meet the performance standard goal, the excavation and sampling processes were repeated as needed (or as directed by



the OSC) before backfilling began. Final excavation depths were recorded in each grid using the GPS system on the excavator.

Finally, Node Samples were collected for EPA statistical analysis of project objectives for the overall Superfund Site Operable Unit. Six discrete Node Samples were collected from eight of the sample grids used during confirmation sampling. The six sample locations coincided with locations used for the six-point composite confirmation samples.

### **3.5.6 Post-Excavation Survey**

After the excavation of sediments and backfilling in each SA, FIELDS conducted a bathymetric survey in each SA. Data from these surveys were used to calculate total volume of contaminated sediments removed and the mass and volume of PCBs removed.

### **3.5.7 Backfilling and Restoration of Excavated SAs**

After excavation of sediment and the collection of confirmation, verification, and node sediment samples from each grid, ERRS backfilled and restored the creek channel. This process consisted of covering the channel bottom with an 8-ounce, non-woven geotextile fabric. In areas with a removal depth exceeding 30 inches, a 24-inch-thick layer or more of 6-inch crushed stone (“rip-rap”) was placed from bank to bank in the creek bottom, followed by the placement of 6-inch “river rock” along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above layers of crushed stone and river rock to restore the original creek bottom elevation. The final step consisted of ERRS anchoring coir logs along both banks with wooden stakes and twine at the point where creek water touched each bank.

Before using of backfill materials, START or ERRS collected samples of backfill material (per source) for analysis for Target Compound List (TCL) volatile organic compounds (VOC), TCL semi-volatile organic compounds (SVOC), TCL pesticides and herbicides, Target Analyte List (TAL) metals, and PCBs.

### **3.5.8 Removal of Site Facilities and Controls**

Following completion of backfilling and restoration activities, ERRS removed any structures installed to perform excavation and restoration activities. These structures included perimeter fencing, decontamination facilities, and construction entrances. However, ERRS left erosion control features such as silt fences in place and monitored and maintained these features until final vegetation was established.

### **3.5.9 Re-vegetation and Monitoring**

After removal of Site facilities and controls, an ERRS subcontractor performed re-vegetation activities, which consisted of placing a grass seed/fertilizer mix and straw mulch over impacted areas and planting trees and shrubs in accordance with a SA-specific Restoration Plan.

Restored areas were generally monitored for a minimum of 1 year, except SA1-A which was monitored for approximately 9 months. During this period, ERRS arranged for replanting as needed; monitor and maintain erosion controls; and maintain inspection logs to document observations, corrective actions, and work completion.

## **4. SAMPLING**

EPA, START and ERRS conducted the following sampling activities:

- Characterize sediment in each removal grid, thereby determining target excavation depths (i.e., pre-removal in-stream sediment samples analyzed for PCBs)
- Waste characterization to support transportation and disposal of stabilized sediment and soil [i.e., analysis for Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP SVOCs, TCLP pesticides and herbicides, TCLP RCRA metals, PCBs, total cyanide, total sulfide, flashpoint, pH]
- Monitor particulate levels in ambient air at the JSSA
- Confirm proper decontamination of heavy equipment (e.g., front-end loaders and excavators) (i.e., wipe samples analyzed for PCBs)
- Confirm discharged groundwater was not contributing PCBs to the creek downstream of the SAs (i.e., groundwater samples analyzed for PCBs)
- Determine extent of PCB contamination in the recreational area east of the JSSA (i.e., Upjohn Park soil samples analyzed for PCBs)

- Characterize baseline concentrations of contaminants before preparing temporary staging areas and access roads (i.e., pre-construction support area soil samples analyzed for PCBs, TCL VOCs, TCL SVOCs, TCL pesticides and herbicides, TAL metals)
- Confirm that work activities did not contaminate support area soils after the excavation (i.e., post-construction soil samples analyzed for PCBs, TCL VOCs, TCL SVOCs, TCL pesticides and herbicides, TAL metals)
- Confirm that no contaminants exist in materials used during restoration activities (i.e., borrow source material samples analyzed for PCBs, TCL VOCs, TCL SVOCs, TCL pesticides and herbicides, TAL metals)
- Monitor creek water quality during excavation and isolation dewatering activities (i.e., water quality monitoring samples)
- Monitor quality of treated wastewater discharged from EPA's mobile WWTP to ensure compliance with SRD (i.e., wastewater samples)
- Excavate PCB-contaminated sediment from each removal grid to achieve cleanup performance standard goal (i.e., confirmation and verification sediment samples analyzed for PCBs)

#### **4.1 QAPP AND FSP**

As discussed in Section 1.2.2, the QAPP describes necessary QA, QC, and other technical activities that EPA, START, and ERRS implemented to ensure that excavation work satisfied performance criteria (i.e., project management and objectives, data acquisition and validation, and assessment and oversight). All sampling activities were conducted in accordance with applicable sections of the QAPP and FSP.

#### **4.2 PRE-REMOVAL SEDIMENT SAMPLING**

To further characterize PCB concentrations in each SA, EPA, START, and ERRS contractor collected pre-removal sediment core samples from each grid without PCB analytical data. This sampling was conducted to verify targeted removal depths within each SA grid. EPA, START, and ERRS contractor collected sediment samples by advancing Lexan tubes in the creek channel to target depths and extracting sediment cores.

START or ERRS then recorded characteristics of each core on a boring log sheet; separated each core into 12-inch sections; containerized a portion of each 12-inch section into a 4-ounce glass jar; and shipped the samples for PCB analysis.

### **4.3 WASTE CHARACTERIZATION SEDIMENT SAMPLING**

The ERRS transportation and disposal coordinator worked with disposal facilities to develop waste profiles for sediment containing PCBs at levels greater than or equal to 50 mg/kg and at less than 50 mg/kg.

A subcontractor transported all sediment containing PCBs at levels greater than or equal to 50 mg/kg to the Wayne Disposal in Belleville, Michigan, a facility that handles TSCA waste. The ERRS subcontractor transported all sediment containing PCBs at levels less than 50 mg/kg to C&C Landfill in Marshall, Michigan.

### **4.4 JOHN STREET STAGING AREA AIR SAMPLING**

During sediment handling activities, ERRS collected perimeter air samples using a PDR or DataRAM particulate monitors at the JSSA.

### **4.5 WIPE SAMPLING**

To confirm decontamination of certain pieces of heavy equipment (i.e., excavators, off-road dump trucks, trench boxes, etc.), START collected wipe samples after decontamination. The wipe samples were collected from representative areas (e.g., excavator buckets or dump truck beds) and analyzed for PCBs. ERRS evaluated results using an action level of 10 micrograms per 100 cubic centimeters (cm<sup>2</sup>).

### **4.6 GROUNDWATER SAMPLING**

After installation of the isolation dewatering (groundwater) system in SA6 and SA1-A, ERRS collected and analyzed four water samples for PCBs to confirm that discharged groundwater was not contributing PCBs to downstream sections of the creek.

### **4.7 UPJOHN PARK SOIL SAMPLING**

To determine the presence or absence of PCB-contaminated sediment in Upjohn Park, EPA and START collected and analyzed for PCBs biased samples from low-lying and water-saturated areas, areas exhibiting deposition patterns based on the historical flooding of Portage Creek, and areas

containing depositional sediments. Twenty samples were taken and all results were non-detect for PCBs. Sampling results and validation reports are available upon request.

#### **4.8 PRE- AND POST-CONSTRUCTION SOIL SAMPLING**

To characterize the pre-construction condition of soil at the JSSA and in each SA, START collected six-point composite surface soil samples from pre-designated, 2,500 square foot (ft<sup>2</sup>) grids. All 2,500ft<sup>2</sup> composite samples were analyzed for PCBs, while 1 one sample per 10,000 ft<sup>2</sup> was analyzed for PCBs, TCL VOCs, TCL SVOCs, TCL pesticides and herbicides, and TAL metals.

EPA evaluated post-construction soil conditions by sampling of these same areas after ERRS completed removal of all support material and equipment. START performed post-construction soil sampling in the same manner as pre-construction soil sampling. In the event that post-construction conditions were found to be different than pre-construction conditions, EPA worked with property owners to address the situation.

**Figure 3** shows pre-construction soil sampling grids at the JSSA and representative ranges of detected PCB results. **Figure 4** shows post-construction soil sampling grids and results.

#### **4.9 BORROW SOURCE MATERIAL SAMPLING**

Before using a borrow source material for backfilling, restoration, and grading activities, ERRS or START collected a sample of each material to ensure clean fill materials were used. START or ERRS collected borrow source material samples at a rate of one sample per 5,000 yd<sup>3</sup> of each type of material. Samples were analyzed PCBs, TCL VOCs, TCL SVOCs, TCL pesticides and herbicides, and TAL metals. ERRS compared borrow source material sample analytical results to applicable Part 201 cleanup criteria and Part 213 risk-based screening levels (RBSL) provided by the MDEQ in Operation Memorandum No. 1 (Table 2, Column 19, Direct Contact Criteria & RBSLs, December 10, 2004). A total of 14 samples of the different types of backfill utilized (soil, gravel, rock) were taken from various sources and analyzed over the course of the project (see Table). All parameters analyzed for were below the applicable standards described above. Sampling results and validation reports are available upon request.

No.	Date	Sample #	Type
1	4/17/2012	BS-FULTON-TOPSOIL-01-041712	soil
2	5/16/2012	BS-AGGREGATERAVINE-ROCK-01-051612	rock
3	5/16/2012	BS-AGGREGATERAVINE-GRAVEL-01-051612	gravel
4	5/16/2012	BS-BELLEVUESTONE-ROCK-01-051612	rock
5	5/16/2012	BS-AGGREGATEGUN-ROCK-01-051612	rock
6	5/17/2012	BS-BREWERSHILLROAD-GRAVEL-01-051712	gravel
7	7/10/2012	BS-FULTON-TOPSOIL-02-071012	soil
8	9/14/2012	BS-BELLEVUESTONE-ROCK-02-091412	rock
9	10/19/2012	1"x3"ROCK-SA5DACCESSRD-101912	rock
10	6/26/2013	BS-3AROCK-01-062613	rock
11	7/24/2013	BS-BACKFILL-SA1CGRID5-SOIL-072413-1	soil
12	8/12/2013	BS-AGGREGATE-ROCK-081213-01	rock
13	8/12/2013	BS-BREWERHILLROAD-GRAVEL-081213-01	gravel
14	8/13/2013	BS-SA1CROCK-ROCK-081313-01	rock

## 4.10 WATER QUALITY MONITORING

### 4.10.1 Turbidity Monitoring

ERRS recorded real-time, direct-read turbidity readings daily during excavation activities except at SA7, which was entirely encompassed within a floodplain. ERRS recorded turbidity readings to identify construction-related contributions, if any, to existing creek turbidity levels.

ERRS established three real-time turbidity monitoring stations in each SA. These were generally place 200 feet (ft) upstream, 200ft downstream, and 300ft downstream of cofferdams or sandbag dams constructed in each SA. An exception was in Axtell Creek, where the upstream monitor could not be placed 200ft upstream, since that portion of Axtell Creek confined in a culvert.

Data loggers recorded real-time turbidity readings once every 0.5 hour and transmitted data through a cellular modem to a computer located at the JSSA.

ERRS also recorded observations such as visible runoff to the creek during work activities. If downstream turbidity readings were two times concurrent upstream readings, ERRS initiated mitigation procedures until downstream readings were below the action level. ERRS used readings from the station located 200ft downstream of the cofferdam or sandbag dam as an early



warning of potential exceedances and compared readings from the station located 300ft downstream of the cofferdam or sandbag dam against the action level.

If turbidity readings reached or exceeded the action level of two times the upstream reading, ERRS adjusted or temporarily ceased work activities to prevent discharge of sediment downstream of the cofferdam or sandbag dam.

#### **4.10.2 Surface Water Sampling**

ERRS collected surface water samples weekly from the upstream turbidity monitor and from the turbidity monitor 300ft downstream of cofferdams or sandbag dams in each of the SAs. These samples were analyzed for PCBs, total suspended solids (TSS), and phosphorus.

#### **4.11 WASTEWATER SAMPLING**

ERRS collected run-off from contaminated sediment staged for transport and potentially contaminated contact water from truck washing, grid dewatering, and equipment decontamination in the reservoir located on the John Street staging pad. This water was treated in EPA's mobile WWTP. In accordance with the SRD, ERRS collected water samples from the system to ensure performance and effectiveness of the WWTP. Specifically, the following samples were collected:

- Influent and intermediate stage wastewater samples on a weekly basis for PCB analysis;
- Effluent wastewater samples on a weekly basis for PCB and TSS analysis; and
- Effluent wastewater samples on a monthly basis for total phosphorus analysis.

ERRS prepared a report documenting the amount of wastewater treated each day the system operated, the cumulative amount of water treated, daily inspection results, and performance and repair information.

#### **4.12 CONFIRMATION AND VERIFICATION SEDIMENT SAMPLING**

Following excavation of contaminated sediment, EPA and START collected six-point composite confirmation sediment samples from excavated grids. These samples were analyzed for PCBs.

In addition to these confirmation sediment samples, EPA and START collected verification sediment samples from specific grids in each SA, beginning with SA5-D (see "Post-Excavation

Sediment Sampling” in Section 3.5.5). EPA and START collected these samples to provide justification for excavation of sediment below target excavation depths for each grid. As with confirmation sediment samples, these samples were analyzed for PCBs.

#### **4.13 NODE SEDIMENT SAMPLING**

Throughout the project, EPA and START collected Node Samples from excavation grids for statistical analysis to achieve project quality objectives for the overall Superfund Site. A total of 48 Node Samples were collected, consisting of 6 discrete samples from 8 grids (grid #8 in SA6-A, grid #3 in SA5-A, grid #2 in SA3-A, grid #3 in SA3-A, grid #4 in SA3-A, grid #5 in SA1-C, grid #2 in SA1-A and grid #3 in SA1-A). The sampling points coincided with points used to collect the six-point composite confirmation sediment samples. Consequently, one six-point composite confirmation sample and six discrete Node Samples were collected from the target grids. As with confirmation and verification sediment samples, these samples were analyzed for PCBs.

### **5. SLOPE AREA-SPECIFIC REMOVAL ACTIVITIES**

Appendices A - I discuss the specific removal activities at each SA.

### **6. DISPOSAL**

#### **6.1 SEDIMENT**

Sediment removed from Site was disposed of in accordance with Federal, state, and local regulations. Sediment defined as TSCA-contaminated was shipped to Wayne Disposal in Belleville, Michigan. A total of 10,006.36 tons of TSCA-contaminated sediment was disposed of throughout the removal project. Sediment defined as non-TSCA-contaminated was shipped to C&C Landfill in Marshall, Michigan, for disposal. A total of 22,744.94 tons of non-TSCA-contaminated sediment was disposed of throughout the removal project.

#### **6.2 WASTEWATER**

EPA’s on-site WWTP treated 1,120,456 gallons of wastewater during Site operations. Wastewater that was not treated at EPA’s on-site mobile WWTP was disposed of at Liquid Industrial Waste

Service in Holland, Michigan. A total of 98,000 gallons was shipped off Site for disposal over the course of the project.

### **6.3 MISCELLANEOUS DEBRIS**

Miscellaneous debris that was generated or encountered during removal actions required disposal or recycling. This debris included wood pallets, corrugated cardboard, scrap metal, batteries, steel, plastic, and tires. Debris was managed in accordance with the DMP. Materials were reused or recycled whenever possible.

Large wooden ‘swamp mats’ were disposed as non-TSCA material at Ottawa County Farms Landfill in Coopersville, Michigan at the end of the project.

## **7 GOVERNMENT COORDINATION AND PUBLIC OUTREACH**

### **7.1 GOVERNMENT COORDINATION**

#### **7.1.1 Local Government**

Throughout the project, EPA met with representatives from various City of Kalamazoo departments to discuss and coordinate ongoing Site activities, conduct Site walkthroughs to observe project progress, and answer questions. Weekly on-site meetings took place and normally included a tour of SAs where work was taking place.

EPA also met periodically with representatives of the City of Kalamazoo Departments of Planning, Engineering, Public Works, and Parks & Recreation to solicit input before finalizing the Restoration Plan, Traffic Control Plan, TMs, and DMP. These departments also were consulted to coordinate clearing and grubbing activities and the removal, repair, and replacement of city-owned infrastructure that was impacted by the removal action.

Finally, EPA met with the Redevelopment Coordinator for the City of Kalamazoo Department of Economic Development - Brownfield Redevelopment Authority to discuss access issues and the Site-specific Restoration Plans for SA7 and SA1, which involved Brownfield properties.

### **7.1.2 State Agencies**

MDEQ, Michigan Department of Natural Resources (MDNR), and the Attorney General of the State of Michigan all served as natural resource trustees for the project. A link to MDEQ's website that discusses the Site is presented in Section 7.3.7.

EPA coordinated with representatives from MDEQ offices in Lansing and Kalamazoo, Michigan. EPA coordinated with MDNR and MDOT to develop work plans that supported the implementation of the project.

Throughout the project, several Site tours were conducted for MDEQ personnel from both the Lansing and Kalamazoo offices. Section 7.2 summarizes all the Site tours.

### **7.1.3 Federal Agencies**

The USFWS served as a natural resource trustee for the project and conducted a Natural Resource Damage Assessment (NRDA) for Portage Creek. EPA coordinated extensively with the USFWS in developing and implementing the Restoration Plan as well as the SA-specific Restoration Plans. EPA also coordinated closely with the USFWS in developing and reviewing a survey conducted for the presence or absence of the federally endangered Indiana Bat conducted at SA1 in July 2013.

The National Oceanic and Atmospheric Administration (NOAA) served as a natural resource trustee for the project. EPA coordinated with NOAA on developing and implementing work plans associated with the project and shared data with NOAA on the confirmation sampling conducted after cleanup activities were completed in each SA.

### **7.1.4 Property Owners**

Several SAs involved access issues on private properties, requiring EPA coordination with property owners to negotiate "consent to access" the creek banks to facilitate cleanup activities. In an effort to keep property owners and tenants apprised of Site activities and to ensure that the Site work did not interfere with the day-to-day use of the properties, EPA conducted weekly Site walkthroughs with owners and tenants in the SAs where work was ongoing. Normally, these Site walkthroughs were held on Friday mornings and lasted approximately 1 hour, during which the property owners and tenants toured the SA and were informed about the past week's activities and

proposed activities for the upcoming week. EPA also answered questions and responded to concerns raised by the property owners and tenants.

In addition, EPA conducted door-to-door visits with residents and property users who may have been impacted by Site activities (i.e., noise, traffic, parking restrictions, and dust) at specific SAs. For example, EPA conducted door-to-door visits of residents on Stockbridge Avenue near the SA6 staging area to discuss the noise generated by the by-pass pumps. EPA also posted signs in parking lots and pedestrian walkways that were to be closed during excavation activities well in advance of the Site work to provide users ample opportunity to find alternate accommodations and routes.

Finally, EPA coordinated closely with property owners and tenants in developing and implementing SA-specific Restoration Plans that addressed their properties once the excavation work was completed. This coordination involved considerations such as types and locations of plants, grassy areas, and trees; repaving of asphalt surfaces; and repair of broken concrete sidewalks and curbs.

When planning for and conducting removal actions in public areas such as Upjohn Park (SA5) and Rose Veterans Memorial Park (SA1-A), EPA met and coordinated with officials from the City of Kalamazoo, Kalamazoo County, and other groups (i.e., the Sunrise Rotary Club and the Friends of the Kalamazoo River Valley Trail) during the early planning stages. The purpose of this coordination was to minimize the impact on public access and use of these areas and to ensure that restoration was consistent with future planning and use of the areas.

## **7.2 TOURS**

Several groups visited the Site during the project for tours. The table below summarizes the site tours conducted.

Date	Group	No. of Visitors	Area
8/18/2011	NRDA Trustees (MDEQ, NOAA, and USFWS)	6	JSSA
5/1/2012	NRDA Trustees (MDEQ, NOAA, and USFWS)	4	SA6, SA7
6/12/2012	NRDA Trustees and Bronson Methodist Hospital	8	JSSA
9/26/2012	Michigan State University (MSU) Environmental Law students	15	JSSA, SA5
10/1/2012	NRDA Trustees and Bronson Methodist Hospital	8	JSSA
10/3/2012	Kalamazoo Cleanup Coalition	8	SA5
5/2/2013	Kalamazoo River Institute for Journalism and Natural Resources	20	JSSA, SA5, SA3-A
6/12/2013	<i>Detroit Free Press</i> reporters	2	SA3-A
7/8/2013	Grand Valley State and Western Michigan Universities	20	SA1
7/8/2013	Grand Valley State University	30	SA3-A, SA1
7/9/2013	Western Michigan University	40	SA3-A, SA1
7/31/2013	MDEQ	6	JSSA, SA3-A, SA1
9/11/2013	MDEQ Kalamazoo District Office	8	JSSA, SA1
	<b>TOTAL TOUR VISITORS</b>	<b>175</b>	

## 7.3 PUBLIC OUTREACH

This section discusses the public outreach efforts conducted for the Site, including public meetings, fact sheets, special bulletins, press releases, press articles, other coverage, and websites.

### 7.3.1 Public Meetings

EPA gave Site-specific updates at public meetings on April 27, August 18, and December 15, 2011; May 31, 2012; January 9, 2013; and December 4, 2013. These public meetings were conducted as part of the overall Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site. Before the public meetings, post-card reminders were sent to the mailing list participants. The presentations given at these public meetings are available at <http://www.epaosc.org/portagecreekarea>.

At the request of the Kalamazoo Regional Chamber of Commerce, EPA provided a presentation to the Chamber's Environmental Advisory Council on September 13, 2011. On October 29, 2013, EPA presented to the Sunrise Rotary Club as requested.

### 7.3.2 Fact Sheets

Six fact sheets were developed before and during the project. All six fact sheets were distributed to and posted on EPA's website to update the public over the course of the project. The table below summarizes the fact sheets related to the project.

Title	Date
PCB Cleanup Completed in Portage Creek	November 2013
PCB Cleanup Proceeding for Portage Creek	January 2013
PCB Cleanup Proceeding for Portage Creek	May 2012
PCB Cleanup Proposed for Creek	August 2011
Update on Kalamazoo Site Cleanup Work in Spring	April 2011
Department of Justice, EPA Reach Bankruptcy Settlement with Lyondell	May 2010

### 7.3.3 Special Bulletins

EPA issued numerous special bulletins over the course of the project. These special bulletins are available at <http://www.epaosc.org/portagecreekarea>. The bulletins normally announced the start and finish dates of excavation activities and projected timelines for each SA. The special bulletins also provided information on scheduled public meetings and on issued fact sheets. Finally, seasonal demobilization and remobilization dates were projected to keep the public apprised of the project status. Many users subscribed to an "RSS Feed" function that notified them directly of any new bulletins posted on the project website.

### 7.3.4 Press Releases

Throughout the project, EPA issued three press releases to update the press. The table below summarizes the press releases issued.

Title	Date
EPA to Clean Up Final Section of Portage Creek in Kalamazoo	7/31/2013
EPA Begins Portage Creek PCB Cleanup	3/18/2013
Jan 9, 2013 Public Meeting	January 2013

### 7.3.5 Press Articles

Press articles prepared for the project are listed below.

- Parker, Rosemary. June 7, 2011. “Kalamazoo River Superfund Cleanup to Focus on Portage Creek Next.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2011/06/kalamazoo\\_river\\_superfund\\_clean.html](http://www.mlive.com/news/kalamazoo/index.ssf/2011/06/kalamazoo_river_superfund_clean.html)
- Parker, Rosemary. June 20, 2011. “Portage Creek Getting Major Facelift with Work to Clean Up PCBs.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2011/06/portage\\_creek\\_getting\\_major\\_facelift.html](http://www.mlive.com/news/kalamazoo/index.ssf/2011/06/portage_creek_getting_major_facelift.html)
- Parker, Rosemary. August 9, 2011. “Portage Creek Clean-up Meeting Slated, Thursday Deadline Set for Assistance Requests.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2011/08/portage\\_creek\\_clean-up\\_meeting.html](http://www.mlive.com/news/kalamazoo/index.ssf/2011/08/portage_creek_clean-up_meeting.html)
- Killian, Chris. August 19, 2011. “Portage Creek PCB Cleanup to Begin Soon in Kalamazoo, May Take up to 4 Years.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2011/08/portage\\_creek\\_pcb\\_clean\\_up\\_to.html](http://www.mlive.com/news/kalamazoo/index.ssf/2011/08/portage_creek_pcb_clean_up_to.html)
- Klug, Fritz. May 29, 2012. “EPA to Host Public Meeting on Portage Creek PCB Cleanup.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2012/05/epa\\_to\\_host\\_public\\_meeting\\_on.html](http://www.mlive.com/news/kalamazoo/index.ssf/2012/05/epa_to_host_public_meeting_on.html)
- No Author. June 25, 2012. “Across the USA, News from every State, Michigan: Kalamazoo.” *USA Today*.
- Klug, Fritz. January 3, 2013. “EPA to Host Public Meeting on 2013 Portage Creek Cleanup Schedule.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2013/01/epa\\_to\\_host\\_public\\_meeting\\_on\\_1.html](http://www.mlive.com/news/kalamazoo/index.ssf/2013/01/epa_to_host_public_meeting_on_1.html)
- Bugnaski, Mark. January 3, 2013. Photographs from the Kalamazoo Gazette – Portage Creek Clean Up. *Kalamazoo Gazette*. Source: [http://photos.mlive.com/kalamazoogazette/2013/01/portage\\_creek\\_clean\\_up.html](http://photos.mlive.com/kalamazoogazette/2013/01/portage_creek_clean_up.html)
- Klug, Fritz. January 9, 2013. “EPA Portage Creek Cleanup: Little Impact Anticipated for Motorists, Residents.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2013/01/epa\\_portage\\_creek\\_cleanup\\_little.html](http://www.mlive.com/news/kalamazoo/index.ssf/2013/01/epa_portage_creek_cleanup_little.html)



- Institutes for Journalism & Natural Resources. May 3, 2013. “Dispatches from the Road: Kalamazoo River Institute.” *Institutes for Journalism & Natural Resources*. Source: <http://blog.ijnr.org/2013/05/03/dispatches-from-the-road-kalamazoo-river-institute/>
- Mitchell, Alex. July 30, 2013. “Michigan Avenue Underpass of Kalamazoo River Valley Trail to Close for Portage Creek Dredging.” *Kalamazoo Gazette*. Source: [http://www.mlive.com/news/kalamazoo/index.ssf/2013/07/michigan\\_avenue\\_underpass\\_of\\_k.html](http://www.mlive.com/news/kalamazoo/index.ssf/2013/07/michigan_avenue_underpass_of_k.html)
- Smith, Lindsey. October 14, 2013. “PCB Cleanup in Portage Creek in Kalamazoo Finishing under Budget, Ahead of Schedule.” Michigan Radio. Source: <http://michiganradio.org/post/pcb-cleanup-portage-creek-kalamazoo-finishing-under-budget-ahead-schedule>.

### 7.3.6 Other Coverage

In September 2012, local freelance photographer Matt Clysdale took photographs of ongoing project activities at the staging pad and in SA5 for a documentary on osprey in the Kalamazoo River system. The project subsequently was put on hold.

In September 2013, a photographer from Western Michigan University took photographs of the ongoing project activities at SA1 for a documentary on the Kalamazoo River cleanup project.

In October 2013, two reports from the Public Media Network of Greater Kalamazoo took photographs, conducted interviews, and recorded videos for a monthly cable television program titled “Connect.” The November 2013 episode of the program was dedicated to the Portage Creek cleanup project.

### 7.3.7 Websites

The following websites contain information about or references to the Site. Only state and federal government-hosted websites are listed below.

- 1) EPA Region 5 Kalamazoo River Superfund Project  
<http://www.epa.gov/region5/cleanup/kalproject/>
- 2) EPA Great Lakes Region Areas of Concern – Kalamazoo River  
<http://www.epa.gov/greatlakes/aoc/kalriv/index.html>

- 3) MDEQ's Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Information  
<http://www.michigan.gov/deq/0,4561,7-135-3304-84646--,00.html>
- 4) USFWS Kalamazoo River Natural Resource Damage Assessment  
<http://www.fws.gov/midwest/es/ec/nrda/KalamazooRiver/>
- 5) NOAA Great Lakes Region Damage Assessment, Remediation and Restoration Program  
<http://www.darrp.noaa.gov/greatlakes/kalamazoo/>

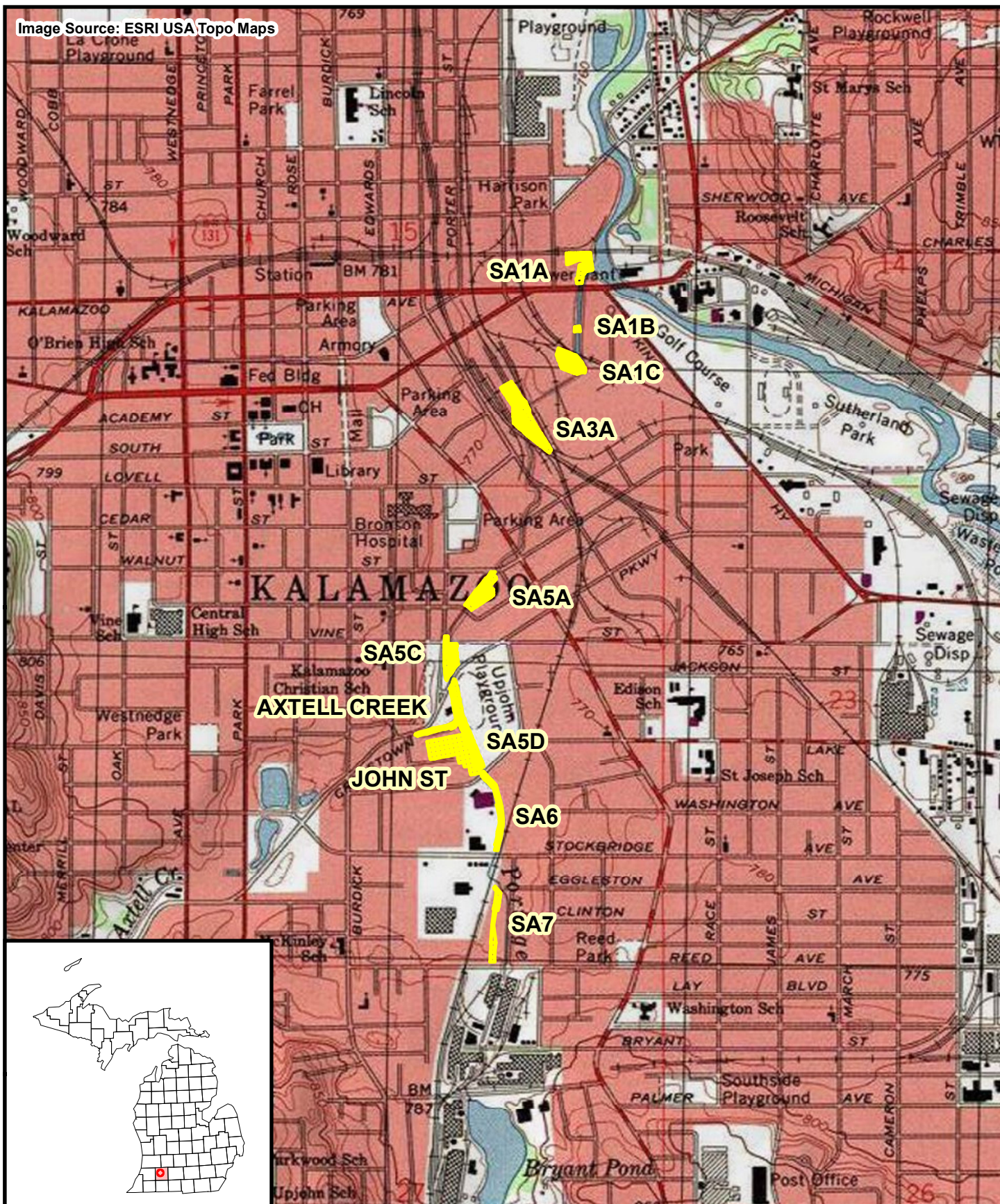
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## FIGURES

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Image Source: ESRI USA Topo Maps



# Legend

Site Boundaries

0 2,000 Feet



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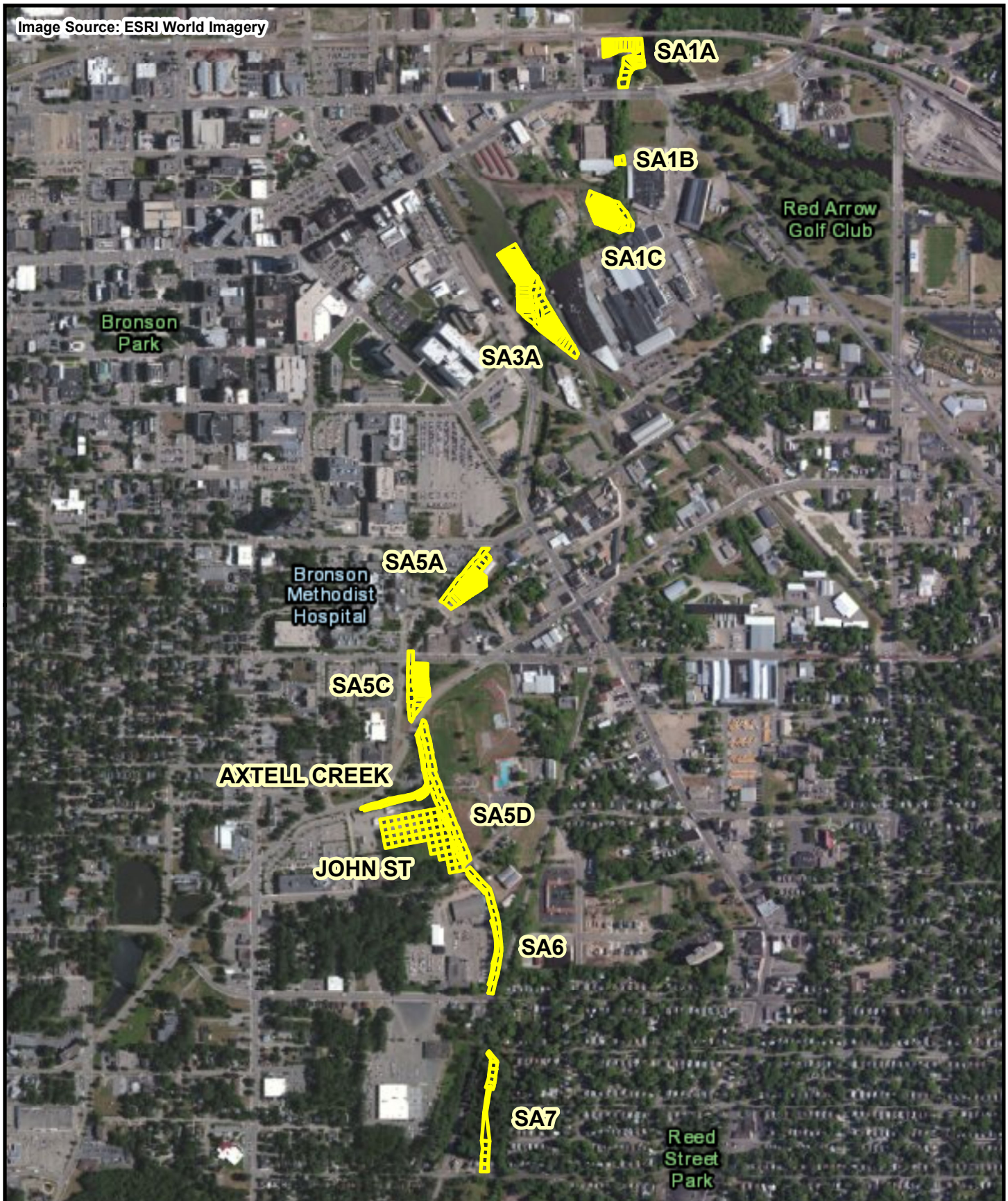
360 East Maple Road  
Suite R  
Troy, Michigan 48083

## Figure 1

Site Location Map  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI World Imagery



#### Legend

 Site Boundaries

0 1,250  
Feet



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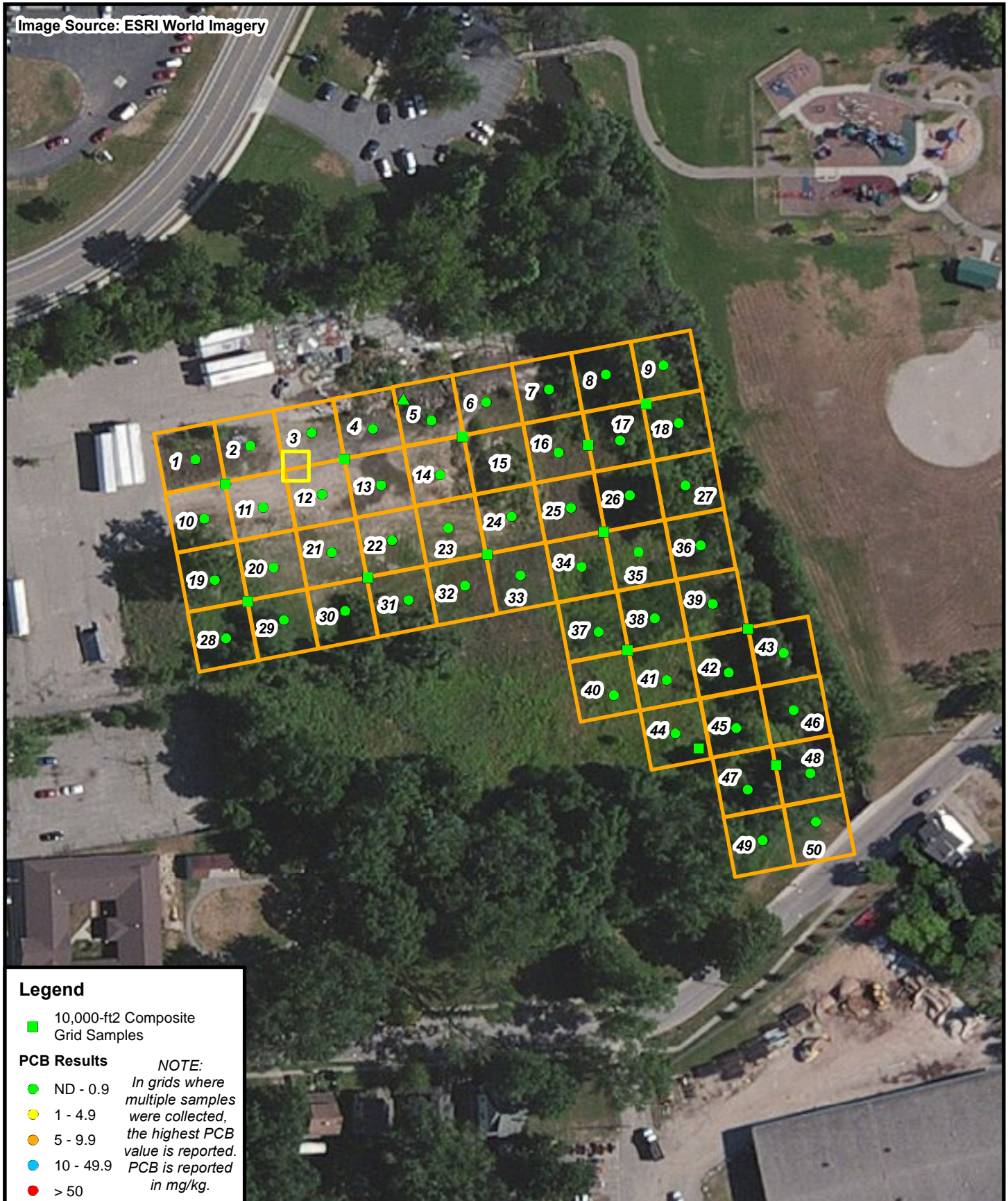
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**Figure 2**  
Slope Area Location Map  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI World Imagery



### Legend

- 10,000-ft<sup>2</sup> Composite Grid Samples

### PCB Results

- ND - 0.9
  - 1 - 4.9
  - 5 - 9.9
  - 10 - 49.9
  - > 50
- NOTE:*  
In grids where multiple samples were collected, the highest PCB value is reported.  
PCB is reported in mg/kg.

▲ Fuel Tank

Truck Wash

Construction Grids

0 150 Feet



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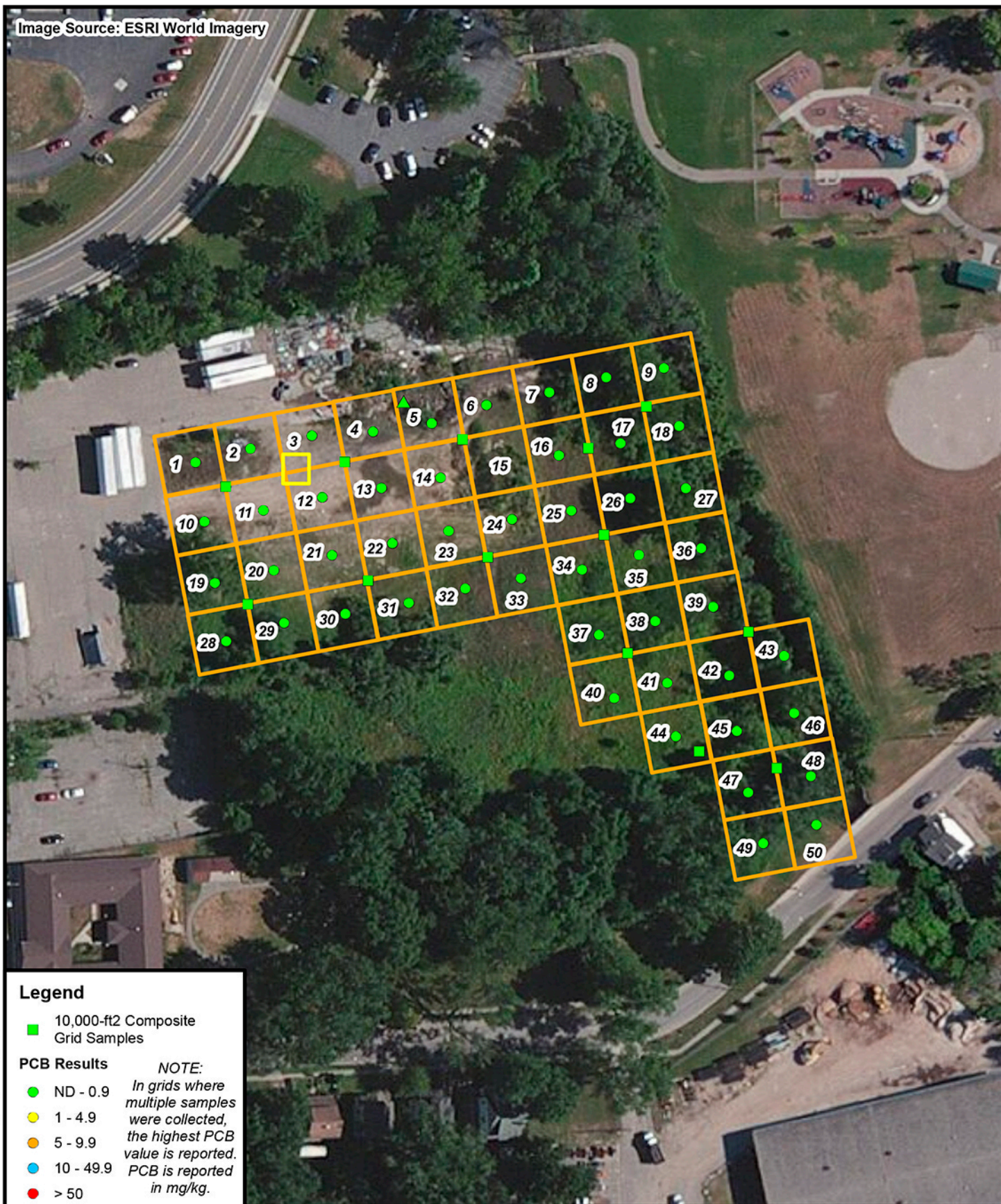
360 East Maple Road  
Suite R  
Troy, Michigan 48083

### Figure 3

John Street Staging Area Pre-Construction Soil Sampling Results Map  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan



Image Source: ESRI World Imagery



### Legend

- 10,000-ft<sup>2</sup> Composite Grid Samples
  - PCB Results**
    - ND - 0.9
    - 1 - 4.9
    - 5 - 9.9
    - 10 - 49.9
    - > 50
  - ▲ Fuel Tank
  - Truck Wash
  - Construction Grids
- NOTE:**  
In grids where multiple samples were collected, the highest PCB value is reported.  
PCB is reported in mg/kg.
- 0 150 Feet
- N



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**Figure 4**

John Street Staging Area Post-Construction Soil Sampling Results Map  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

## **APPENDIX A**

### **SLOPE AREA 7 REPORT PORTAGE CREEK AREA SITE**



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## **LIST OF ATTACHMENTS**

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- A-A Photographic Documentation

# **1. SLOPE AREA BACKGROUND**

## **1.1 SLOPE AREA DESCRIPTION**

SA7 is located in a wooded floodplain west of Portage Creek and southwest of the intersection of Egleston Avenue and Reed Court. A haul road extended south from the excavation area to Reed Street. The approximate geographic coordinates are latitude 42.2761° North and longitude - 85.5768° West (**Figure A-1**). The footprint of SA7, which consists of five excavation grids, encompasses approximately 11,150 ft<sup>2</sup>. SA7 is surrounded by residential properties and railroad tracks. Portage Creek flows through SA7 from south to north (**Figure A-2**).

## **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access to Property” forms from one property owner, providing access to the excavation area. The property owner granted EPA and its contractor’s permission to establish access roads and a staging area, conduct contaminated sediment excavation operations, and restore the property once excavation was complete. During Site operations, EPA scheduled weekly meetings with the property owner, conducted a walk-through, and provided updates on current and planned activities.

## **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm excavation depths in Grid 4 of the excavation area
- A pre-excavation topographic survey to document existing Site conditions
- Installation of environmental controls to minimize the impact of excavation activities on original Site features
- Clearing and grubbing to allow physical access to the excavation area
- Collection of pre-construction soil samples from support and access road areas
- Construction of a support area, transfer station, and access road
- Excavation of PCB-contaminated sediments
- Transportation and disposal of stabilized sediments

- Collection, analysis, and data validation of confirmation sediment samples obtained from each excavation grid
- Collection of post-construction soil samples from support and access road areas
- Development and implementation of an area-specific restoration plan in coordination with the property owner
- A post-excavation topographic survey to document final Site conditions

Excessive rainfall, along with adverse impacts from an upstream construction project on the creek channel, resulted in flooding of the entire excavation area in Fall 2011 during clearing and grubbing activities. Therefore, EPA demobilized crews and equipment from the area and returned in Spring 2012 to resume Site preparation activities.

After completion of the Site set-up activities (i.e., construction of a sediment transfer station and installation of sediment fences, etc.), ERRS excavated TSCA and non-TSCA PCB-contaminated sediments from all five excavation grids, beginning with Grid 5 and continuing from north to south through Grid 1. Additional information on the excavation activities is provided in Section 3.

A total of three floodplain sediment core samples from two different locations, seven pre-construction soil samples, five confirmation sediment samples, and eight post-construction samples (including one duplicate sample) were collected prior to, during, and after the excavation activities. Additional information is provided for these samples in Sections 4.1 - 4.3.

Once the excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information is provided for these activities in Section 5.1.

## **2. PRE-REMOVAL ACTIVITIES**

This section discusses the pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment A-A** provides photographic documentation of selected pre-removal activities.

### **2.1 PRE-REMOVAL SAMPLING ACTIVITIES**

ERRS and START performed pre-excavation sediment sampling on August 30, 2011. A total of three sediment samples were collected from two different core locations in Grid 4. All analytical

data results for the pre-removal sediment samples are presented in **Table A-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses to be conducted. The intent of this sampling was to confirm the vertical extent of contamination, to determine if the contaminant levels were below TSCA landfill disposal parameters, and to finalize the sediment excavation depths within each grid. These samples were shipped to TestAmerica Laboratories of Dayton, Ohio, for PCB analysis. The analytical results verified that the sediment contaminant levels for PCBs were below TSCA disposal limits. As such, the sediment was excavated as non-TSCA sediment.

## **2.2 PRE-REMOVAL FEATURES ASSESSMENT**

START documented pre-construction conditions of the support area as well as roadways leading from the support area to the JSSA. Due to the absence of engineered structures (e.g., bridges, drainage pipes, etc.), a structural engineer did not perform a pre-removal structure feature assessment of the area.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of Access Road and Transfer Station**

Initial site setup activities occurred in October 2011. A sub-contractor cleared trees and vegetative cover that restricted excavation operations, including overgrown brush, grass, bushes, trees, and debris such as tires and garbage. The area extending from the southern end of the excavation area to Reed Street was cleared and widened in order to accommodate a support area, a transfer station, and an access road.

An access road was constructed leading from the support area to the southern end of the excavation area. This road was constructed of an 8-ounce, non-woven geotextile fabric laid beneath two layers of hardwood timber mats. Due to unfavorable weather conditions, activities were suspended from November 2011 until February 2012.

Beginning in February 2012, a sediment transfer station was constructed in the support area to stage contaminated soil prior to load-out into over-the-road dump trucks. The transfer station was underlain by HDPE road mats and had large, timber mat sidewalls.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-removal topographic survey of the excavation area in July 2011. The purpose of this survey was to document the pre-excavation topographical conditions of the floodplain and surrounding area. This survey provided a baseline for evaluating the contaminated sediment excavation within each grid and provided guidance during backfilling activities. EPA FIELDS then performed a post-removal topographic survey of the excavation area.

### **2.3.3 Excavation Area Isolation**

During the excavation of the non-TSCA sediments from Grids 4 and 5, EQM used a sand berm to isolate these two grids from the TSCA sediments located in Grids 1 to 3 of SA7 (**Figure A-2**).

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize the impact of the excavation activities. Many of the environmental controls are specified in the SESC. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by site operations.
- Construction Entrance/Exit – Site access was established immediately north of Reed Street on an empty parcel of land located between 419 Reed Street and 429 Reed Street. The construction entrance/exit, which used an existing curb cut on Reed Street, consisted of an 8-ounce, non-woven geotextile fabric underlayment with a top layer of 1-inch x 3-inch rock. The construction entrance/exit was approximately 12 feet wide.
- Tire Wash Station - A portable tire wash station was set up between the support area and access road described above. After each truck was loaded, a crew member sprayed off soil from truck tires as the truck passed through the station prior to exiting the Site. Wash waters were pumped to a temporary storage tank and trucked to the wastewater treatment plant to maintain suitable storage capacity.
- Dust Control - A water truck applied water for dust control within staging areas and truck entrances/exits as necessary.
- Silt and Snow Fencing – Silt and snow fencing was installed along both sides of the creek to stabilize the sediments and to prevent erosion into the creek channel.

- Waste Water Treatment Plant – A WWTP was constructed and operated at the JSSA. The Water Management Plan referenced in Section 2 of the TM was not developed. Plans were included in the "Water Discharge Permit Application for Substantive Requirements Document" (May 2012).

### 3. EXCAVATION/DISPOSAL ACTIVITIES

The excavation of contaminated sediments was conducted in March 2012. Excavation commenced in Grid 5 and continued from north to south through Grid 1 in two phases. Grids 4 and 5 were excavated first because these grids both contained non-TSCA-contaminated sediments. Excavation of Grids 1 through 3 followed because these grids contained TSCA-contaminated sediments. All grids were excavated to a target depth (see Table A), sampled, then backfilled as described in Section 5.1.

An excavator was positioned along the south edge of the floodplain to access the contaminated sediments. The excavator conducted some limited solidification activity using Calciment at the excavation and then loaded excavated material directly into a crawler carrier for transport to a transfer station located in the support area located off Reed Street.

When sufficient quantities of dried, contaminated sediments were accumulated in the transfer station, an operator loaded large semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment. These trucks left the Site directly for the designated disposal facilities.

**Table A - SA7 Excavation Details**

<b>Grid</b>	<b>Target Excavation Depth (inches bss)</b>	<b>Final Excavation Depth (inches bss)</b>	<b>Surface Area of Excavated Sediment (ft<sup>2</sup>)</b>	<b>Volume of Excavated Sediment (yd<sup>3</sup>)</b>
SA7-1	24	24	2244	166
SA7-2	24	24	2236	166
SA7-3	24	24	2246	166
SA7-4	24	24	2251	167
SA7-5	24	24	2174	161

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = cubic yard

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to commencement of Site operations, pre-construction soil conditions were characterized by collecting seven surface soil samples from the support and access road area. The support and access road area was divided into a total of six pre-construction and post-construction sample grids, each measuring approximately 2,500 ft<sup>2</sup> (**Figure A-2**). One six-point composite soil sample was collected from each grid and analyzed for PCB content only.

Material from each PCB-only grid sample was combined into a single sample in order to create one overall composite sample, which the laboratory analyzed for TCL VOCs and SVOCs, TCL herbicides, TAL metals, and PCBs. Analytical data results for the pre-construction soil samples are presented in **Table A-2**.

### **4.2 CONFIRMATION SEDIMENT SAMPLING**

Following the excavation of the PCB-contaminated sediments from Grids 1 - 5, a total of five six-point composite sediment samples were collected from excavation grids for PCB analysis. **Figure A-2** shows removal grid boundaries used for confirmation sampling. Analytical data results for confirmation samples are found in **Table A-3**.

Following analysis of confirmation sediment samples, EPA compared analytical results against the performance standard for floodplain soils of 10 mg/kg and the performance standard goal of 5 mg/kg. Based on these floodplain standards, the grids were able to be backfilled without any further excavation.

### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Eight post-construction surface soil samples (including one duplicate sample) were collected in order to characterize the post-construction conditions of soils located in the support and access road areas (**Figure A-2**).

In order to properly collect these samples, the same six grids used for the collection of pre-construction samples were used for post-construction samples. As with the pre-construction



samples, one six-point composite soil sample was collected from each grid, which was then analyzed for PCBs only.

Material from each of the grid samples was combined into one single composite sample, which the laboratory analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals, and PCBs. Analytical data results for post-construction samples are found in **Table A-4**.

#### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the support area at Reed Street. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure A-3** shows the monitoring locations.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

### **5. POST-REMOVAL ACTIVITIES**

#### **5.1 RESTORATION**

Site restoration was completed in three phases. **Attachment A-A** provides photographic documentation of selected restoration activities. The first phase consisted of placing and grading backfill sand and topsoil in previously excavated floodplain grids. The second phase entailed the removal of the access road timber mats, geotextile fabric underlayment, transfer station located in the support area, and the replacement of the existing curb cut with a new curb, as requested by the City of Kalamazoo. The third phase consisted of removing the 1-inch by 3-inch rock and geotextile fabric that covered the support area and placing temporary vegetation cover in areas disturbed by the sediment excavation and hauling activities. Environmental controls (e.g., silt fencing) to prevent erosion were left in place until vegetation was re-established.

### **5.1.1 Infrastructure Removal and Site Repairs**

The installation of various types of infrastructure was required to facilitate sediment excavation operations. The following infrastructure items were removed:

- Portable toilets and hand wash stations
- Construction entrance/exit, truck tire wash station, signage, construction, and security fencing
- Access roads
- Heavy equipment

All corrective actions necessary to repair any damaged features resulting from sediment excavation operations were completed. EPA coordinated with the property owner to verify acceptance of Site repairs and conducted a final Site walk-through.

### **5.1.2 Re-vegetation**

As specified in the Restoration Plan, once the overall area was re-graded, a temporary grass seed/fertilizer mix was applied along with straw or coir matting to prevent erosion. An area-specific restoration plan (available upon request) was completed in coordination with the property owner, and in accordance with the overall Site Restoration Plan.

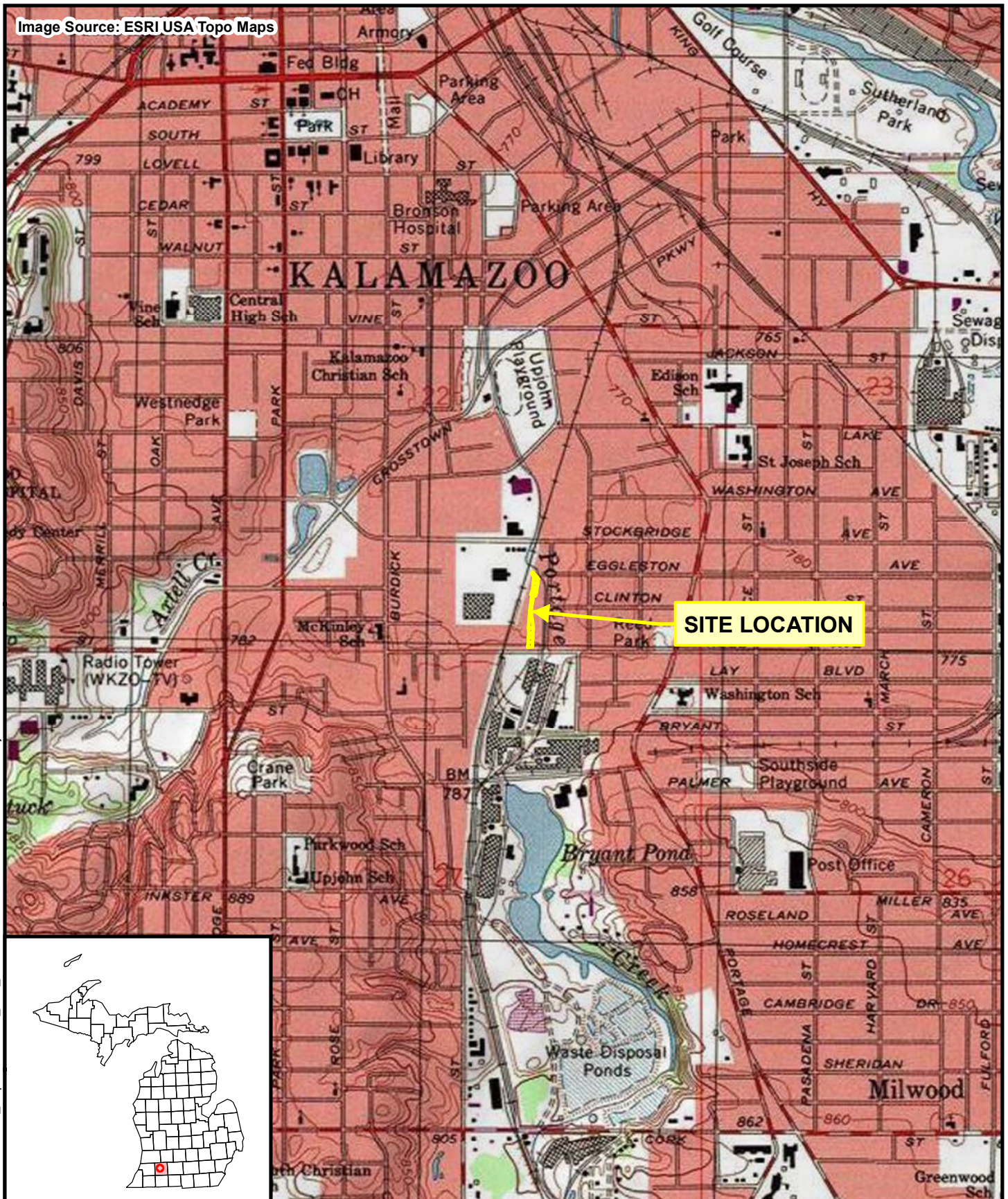
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## FIGURES

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Image Source: ESRI USA Topo Maps



**SITE LOCATION**

# **Legend**

 Site Boundary

0 2,000 Feet



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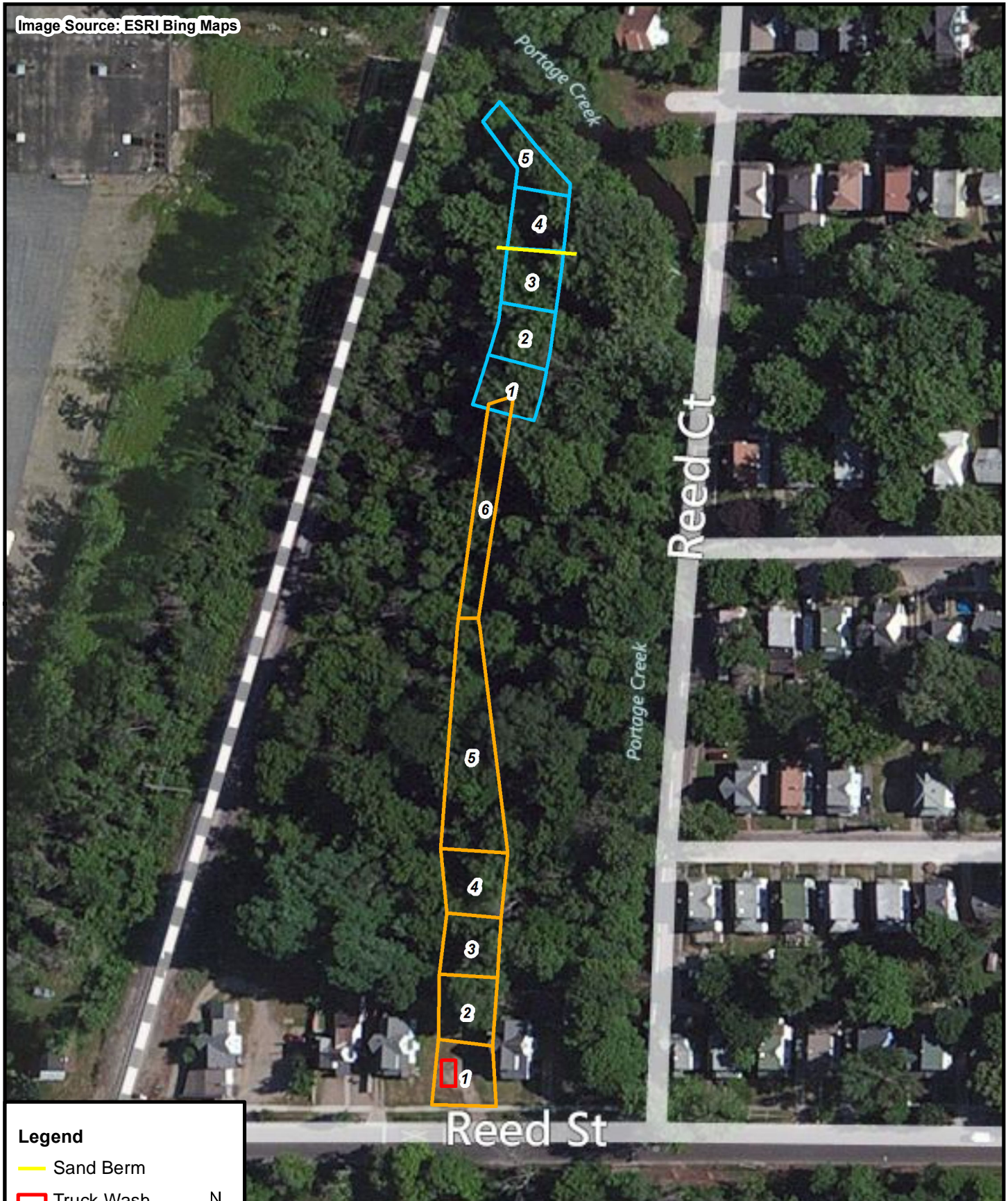
360 East Maple Road  
Suite R  
Troy, Michigan 48083

## **Figure A-1**





Site Location Map  
Portage Creek Area SA7  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



#### Legend

-  Sand Berm
-  Truck Wash
-  Construction Grids
-  Removal Grids

0 150  
Feet



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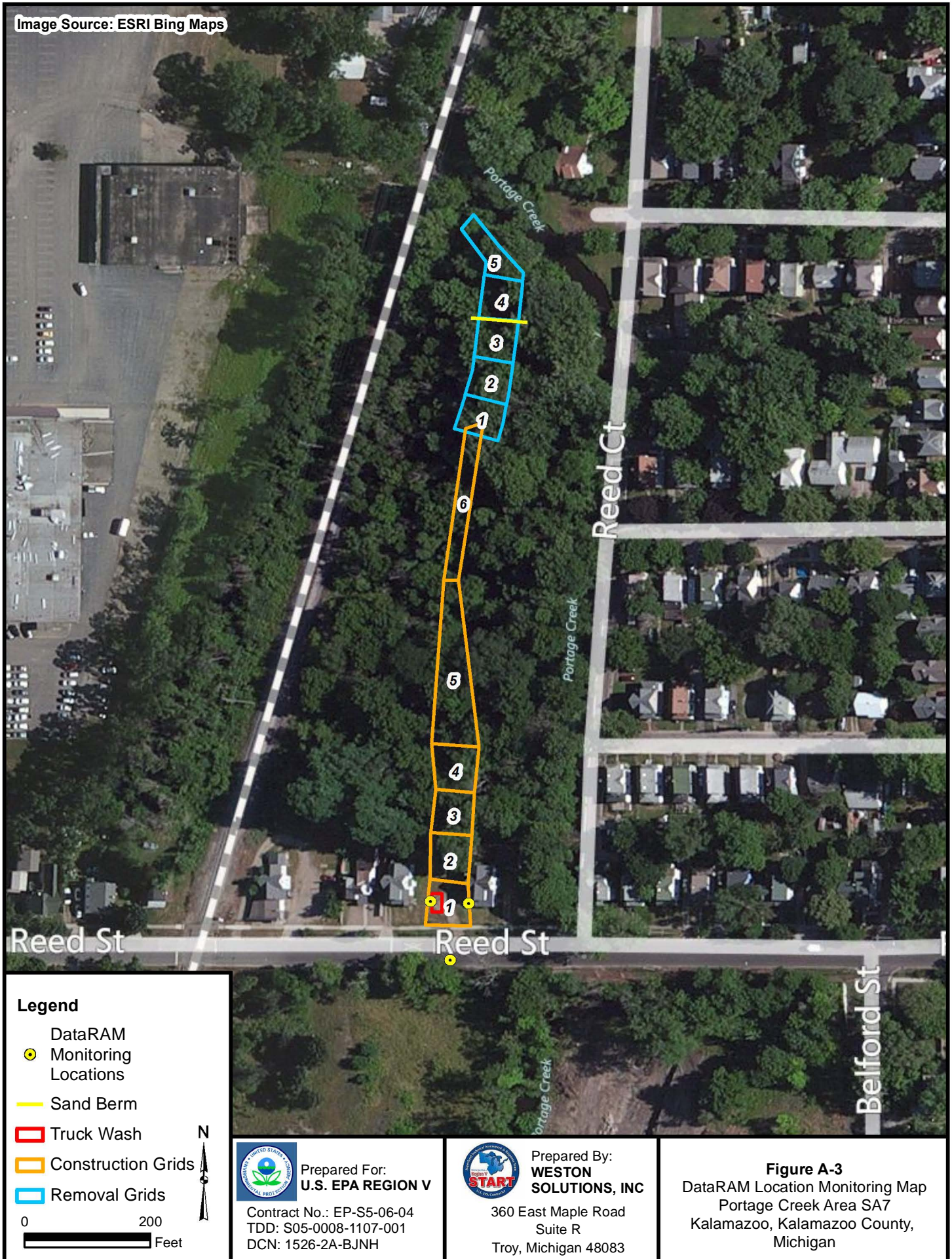
360 East Maple Road  
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Troy, Michigan 48083

#### Figure A-2

Site Features/Setup Map  
Portage Creek Area SA7  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



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## TABLES

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**Table A-1**  
**SA7 Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA7-4-1	PRSD-SA7-4-2	PRSD-SA7-4-2
		Field Sample ID	PRSD-SA7-4-1 (0-12")	PRSD-SA7-4-2 (0-12")	PRSD-SA7-4-2 (12-14")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (feet bss)	0-12	0-12	12-14
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.555 U	0.639 UJ	0.632 U
8082	AROCLOR 1221	mg/kg	0.555 U	0.639 UJ	0.632 U
8082	AROCLOR 1232	mg/kg	0.555 U	0.639 UJ	0.632 U
8082	AROCLOR 1242	mg/kg	0.555 U	0.639 UJ	0.632 U
8082	AROCLOR 1248	mg/kg	0.763	0.639 UJ	0.632 U
8082	AROCLOR 1254	mg/kg	0.555 U	0.639 UJ	0.632 U
8082	AROCLOR 1260	mg/kg	0.555 U	0.639 UJ	0.632 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.763	0 U	0 U

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit



**Table A-2**  
**SA7 Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-ACC RD-SA7-201	PREC-ACC RD-SA7-202	PREC-SUP AREA-SA7	PREC-SUPAREA-SA7-301	PREC-SUPAREA-SA7-302	PREC-SUPAREA-SA7-303	PREC-SUPAREA-SA7-304
		Field Sample ID	PREC-ACCESS ROAD-SA7-201	PREC-ACCESS ROAD-SA7-202	PREC-SUP AREA-SA7	PREC-SUP AREA-SA7-301	PREC-SUP AREA-SA7-302	PREC-SUP AREA-SA7-303	PREC-SUP AREA-SA7-304
		Sampling Date	10/12/2011	10/12/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011
		Depth Interval (feet bss)	NA	NA	N	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	5020 J+	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	117 J+	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	0.939 U	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	5.62 U	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	9390 J+	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	10.1	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	4.17	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	10300 J+	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	94	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	2530 J	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	9.43	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	669	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	18.7 U	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	187 U	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	15.3	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	123 J-	NA	NA	NA	NA
6020	ANTIMONY	mg/kg	NA	NA	0.644	NA	NA	NA	NA
6020	ARSENIC	mg/kg	NA	NA	18.6	NA	NA	NA	NA
6020	COPPER	mg/kg	NA	NA	40.9	NA	NA	NA	NA
6020	MANGANESE	mg/kg	NA	NA	197	NA	NA	NA	NA
6020	SILVER	mg/kg	NA	NA	0.109 U	NA	NA	NA	NA
6020	THALLIUM	mg/kg	NA	NA	0.274	NA	NA	NA	NA
7471	MERCURY	mg/kg	NA	NA	0.194	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg	NA	NA	0.0585	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ALDRIN	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	BETA-BHC	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	CHLORDANE	mg/kg	NA	NA	0.113 U	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	DIELDRIN	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ENDRIN	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA

Table A-2  
SA7 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-ACC RD-SA7-201	PREC-ACC RD-SA7-202	PREC-SUP AREA-SA7	PREC-SUPAREA-SA7-301	PREC-SUPAREA-SA7-302	PREC-SUPAREA-SA7-303	PREC-SUPAREA-SA7-304
		Field Sample ID	PREC-ACCESS ROAD-SA7-201	PREC-ACCESS ROAD-SA7-202	PREC-SUP AREA-SA7	PREC-SUP AREA-SA7-301	PREC-SUP AREA-SA7-302	PREC-SUP AREA-SA7-303	PREC-SUP AREA-SA7-304
		Sampling Date	10/12/2011	10/12/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011
		Depth Interval (feet bss)	NA	NA	N	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	HEPTACHLOR	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	METHOXYCHLOR	mg/kg	NA	NA	0.0563 U	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	NA	NA	0.338 U	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	AROCLOR 1221	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	AROCLOR 1232	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	AROCLOR 1242	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	AROCLOR 1248	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	AROCLOR 1254	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	AROCLOR 1260	mg/kg	0.154 U	0.165 U	0.113 U	0.117 U	0.123 U	0.14 U	0.131 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	NA	NA	10 U	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	10 U	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	10 U	NA	NA	NA	NA
8151	DINOSEB	µg/kg	NA	NA	120 U	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	10 U	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	107 U	NA	NA	NA	NA

Table A-2  
SA7 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-ACC RD-SA7-201	PREC-ACC RD-SA7-202	PREC-SUP AREA-SA7	PREC-SUPAREA-SA7-301	PREC-SUPAREA-SA7-302	PREC-SUPAREA-SA7-303	PREC-SUPAREA-SA7-304
		Field Sample ID	PREC-ACCESS ROAD-SA7-201	PREC-ACCESS ROAD-SA7-202	PREC-SUP AREA-SA7	PREC-SUP AREA-SA7-301	PREC-SUP AREA-SA7-302	PREC-SUP AREA-SA7-303	PREC-SUP AREA-SA7-304
		Sampling Date	10/12/2011	10/12/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011
		Depth Interval (feet bss)	NA	NA	N	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	10.7 U	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	10.7 U	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	53.5 U	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	2.14 U	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	5.35 U	NA	NA	NA	NA

**Table A-2**  
**SA7 Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-ACC RD-SA7-201	PREC-ACC RD-SA7-202	PREC-SUP AREA-SA7	PREC-SUPAREA-SA7-301	PREC-SUPAREA-SA7-302	PREC-SUPAREA-SA7-303	PREC-SUPAREA-SA7-304
		Field Sample ID	PREC-ACCESS ROAD-SA7-201	PREC-ACCESS ROAD-SA7-202	PREC-SUP AREA-SA7	PREC-SUP AREA-SA7-301	PREC-SUP AREA-SA7-302	PREC-SUP AREA-SA7-303	PREC-SUP AREA-SA7-304
		Sampling Date	10/12/2011	10/12/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011
		Depth Interval (feet bss)	NA	NA	N	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	665 U	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	584	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	1660 U	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	332 U	NA	NA	NA	NA

**Table A-2**  
**SA7 Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-ACC RD-SA7-201	PREC-ACC RD-SA7-202	PREC-SUP AREA-SA7	PREC-SUPAREA-SA7-301	PREC-SUPAREA-SA7-302	PREC-SUPAREA-SA7-303	PREC-SUPAREA-SA7-304
		Field Sample ID	PREC-ACCESS ROAD-SA7-201	PREC-ACCESS ROAD-SA7-202	PREC-SUP AREA-SA7	PREC-SUP AREA-SA7-301	PREC-SUP AREA-SA7-302	PREC-SUP AREA-SA7-303	PREC-SUP AREA-SA7-304
		Sampling Date	10/12/2011	10/12/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011
		Depth Interval (feet bss)	NA	NA	N	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	170	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	1660 U	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	171	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	217	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	177	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	233	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	212	NA	NA	NA	NA
8270	DIALATE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	373 U	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	273	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	294 U	NA	NA	NA	NA

Table A-2  
SA7 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-ACC RD-SA7-201	PREC-ACC RD-SA7-202	PREC-SUP AREA-SA7	PREC-SUPAREA-SA7-301	PREC-SUPAREA-SA7-302	PREC-SUPAREA-SA7-303	PREC-SUPAREA-SA7-304
		Field Sample ID	PREC-ACCESS ROAD-SA7-201	PREC-ACCESS ROAD-SA7-202	PREC-SUP AREA-SA7	PREC-SUP AREA-SA7-301	PREC-SUP AREA-SA7-302	PREC-SUP AREA-SA7-303	PREC-SUP AREA-SA7-304
		Sampling Date	10/12/2011	10/12/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011	10/13/2011
		Depth Interval (feet bss)	NA	NA	N	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	665 U	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	166 U	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg	NA	NA	8480 U	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	456	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	1120 U	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	463	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	332 U	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	237	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	294 U	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	746 U	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	746 U	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
PCB = Polychlorinated biphenyl

**Table A-3**  
**SA7 Confirmation Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA7-1	CSD-SA7-2	CSD-SA7-3	CSD-SA7-4	CSD-SA7-5
		Field Sample ID	CSD-SA7-1-033012	CSD-SA7-2-033012	CSD-SA7-3-033012	CSD-SA7-4-032712	CSD-SA7-5-032712
		Sampling Date	3/30/2012	3/30/2012	3/30/2012	3/27/2012	3/27/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.13 UJ	0.13 U	0.178 U	0.148 U	0.137 U
8082	AROCLOR 1221	mg/kg	0.13 U	0.13 U	0.178 U	0.148 U	0.137 U
8082	AROCLOR 1232	mg/kg	0.13 U	0.13 U	0.178 U	0.148 U	0.137 U
8082	AROCLOR 1242	mg/kg	0.412	0.13 U	1.26	0.148 U	0.451
8082	AROCLOR 1248	mg/kg	0.13 U	0.13 U	0.178 U	0.148 U	0.137 U
8082	AROCLOR 1254	mg/kg	0.13 U	0.13 U	0.178 U	0.148 U	0.137 U
8082	AROCLOR 1260	mg/kg	0.13 UJ	0.13 U	0.178 U	0.148 U	0.137 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.412	0 U	1.26	0 U	0.451

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

NA= Not applicable

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-Composite	PSTC-HR (201)-SA7-3	PSTC-HR (202)-SA7-4	PSTC-HR (202)-SA7-4	PSTC-HR (303)-SA7-1	PSTC-HR (304)-SA7-2	PSTC-Staging Pad301
		Field Sample ID	PSTC-Composite(301-201)-SA7	PSTC-HaulRoad(201)-SA7-3	PSTC-HaulRoad(202)-SA7-4	PSTC-HaulRoad(202)-SA7-4-DP	PSTC-HaulRoad(303)-SA7-1	PSTC-HaulRoad(304)-SA7-2	PSTC-StagingPad(301)-SA7-1
		Sampling Date	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	4110 J+	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	55.9 J+	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	0.924 U	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	5.53 U	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	11200 J	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	9.57	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	3.68 U	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	8010 J	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	38 J+	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	3870 J-	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	5.75	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	389	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	18.4 U	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	184 U	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	10.9	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	52.1 J+	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	mg/kg	0.227 U	NA	NA	NA	NA	NA	NA
6020	ARSENIC	mg/kg	11	NA	NA	NA	NA	NA	NA
6020	COPPER	mg/kg	12.1	NA	NA	NA	NA	NA	NA
6020	MANGANESE	mg/kg	325	NA	NA	NA	NA	NA	NA
6020	SILVER	mg/kg	0.113 U	NA	NA	NA	NA	NA	NA
6020	THALLIUM	mg/kg	0.227 U	NA	NA	NA	NA	NA	NA
7471	MERCURY	mg/kg	0.0646	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg	0.072	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg	0.148	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg	0.146	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg	0.119 U	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA



Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-Composite	PSTC-HR (201)-SA7-3	PSTC-HR (202)-SA7-4	PSTC-HR (202)-SA7-4	PSTC-HR (303)-SA7-1	PSTC-HR (304)-SA7-2	PSTC-Staging Pad301
		Field Sample ID	PSTC-Composite(301-201)-SA7	PSTC-HaulRoad(201)-SA7-3	PSTC-HaulRoad(202)-SA7-4	PSTC-HaulRoad(202)-SA7-4-DP	PSTC-HaulRoad(303)-SA7-1	PSTC-HaulRoad(304)-SA7-2	PSTC-StagingPad(301)-SA7-1
		Sampling Date	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	HEPTACHLOR EPOXIDE	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	mg/kg	0.0595 U	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	0.357 U	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	AROCLOR 1221	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	AROCLOR 1232	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	AROCLOR 1242	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	AROCLOR 1248	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	AROCLOR 1254	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	AROCLOR 1260	mg/kg	0.115 U	0.121 U	0.123 U	0.124 U	0.113 U	0.116 U	0.113 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	10 U	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	10 U	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	10 U	NA	NA	NA	NA	NA	NA
8151	DINOSEB	µg/kg	120 R	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	10 U	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIB	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	82 U	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	82 U	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	82 U	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	164 U	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	82 U	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	82 U	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-Composite	PSTC-HR (201)-SA7-3	PSTC-HR (202)-SA7-4	PSTC-HR (202)-SA7-4	PSTC-HR (303)-SA7-1	PSTC-HR (304)-SA7-2	PSTC-Staging Pad301
		Field Sample ID	PSTC-Composite(301-201)-SA7	PSTC-HaulRoad(201)-SA7-3	PSTC-HaulRoad(202)-SA7-4	PSTC-HaulRoad(202)-SA7-4-DP	PSTC-HaulRoad(303)-SA7-1	PSTC-HaulRoad(304)-SA7-2	PSTC-StagingPad(301)-SA7-1
		Sampling Date	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	BENZENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	16.4 UJ	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	16.4 UJ	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	82 J	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	82 U	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	8.2 UJ	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	3.28 UJ	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	8.2 U	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-Composite	PSTC-HR (201)-SA7-3	PSTC-HR (202)-SA7-4	PSTC-HR (202)-SA7-4	PSTC-HR (303)-SA7-1	PSTC-HR (304)-SA7-2	PSTC-Staging Pad301
		Field Sample ID	PSTC-Composite(301-201)-SA7	PSTC-HaulRoad(201)-SA7-3	PSTC-HaulRoad(202)-SA7-4	PSTC-HaulRoad(202)-SA7-4-DP	PSTC-HaulRoad(303)-SA7-1	PSTC-HaulRoad(304)-SA7-2	PSTC-StagingPad(301)-SA7-1
		Sampling Date	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	3390 U	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	8470 U	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-Composite	PSTC-HR (201)-SA7-3	PSTC-HR (202)-SA7-4	PSTC-HR (202)-SA7-4	PSTC-HR (303)-SA7-1	PSTC-HR (304)-SA7-2	PSTC-Staging Pad301
		Field Sample ID	PSTC-Composite(301-201)-SA7	PSTC-HaulRoad(201)-SA7-3	PSTC-HaulRoad(202)-SA7-4	PSTC-HaulRoad(202)-SA7-4-DP	PSTC-HaulRoad(303)-SA7-1	PSTC-HaulRoad(304)-SA7-2	PSTC-StagingPad(301)-SA7-1
		Sampling Date	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ACETOPHENONE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	8470 U	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	1900 U	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	3390 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	847 U	NA	NA	NA	NA	NA	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7	Slope Area 7
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-Composite	PSTC-HR (201)-SA7-3	PSTC-HR (202)-SA7-4	PSTC-HR (202)-SA7-4	PSTC-HR (303)-SA7-1	PSTC-HR (304)-SA7-2	PSTC-Staging Pad301
		Field Sample ID	PSTC-Composite(301-201)-SA7	PSTC-HaulRoad(201)-SA7-3	PSTC-HaulRoad(202)-SA7-4	PSTC-HaulRoad(202)-SA7-4-DP	PSTC-HaulRoad(303)-SA7-1	PSTC-HaulRoad(304)-SA7-2	PSTC-StagingPad(301)-SA7-1
		Sampling Date	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012	4/25/2012
		Depth Interval (feet bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ISOSAFROLE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg	43200 U	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	5710 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	1690 U	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	847 U	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	3800 U	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	3800 U	NA	NA	NA	NA	NA	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7
		Location Type	Post Construction
		Location ID	PSTC-Staging Pad302
		Field Sample ID	PSTC-StagingPad(302)-SA7-2
		Sampling Date	4/25/2012
		Depth Interval (feet bss)	NA
Analytical Method	Chemical Name	Unit	
6010B	ALUMINUM	mg/kg	NA
6010B	BARIUM	mg/kg	NA
6010B	BERYLLIUM	mg/kg	NA
6010B	CADMIUM	mg/kg	NA
6010B	CALCIUM	mg/kg	NA
6010B	CHROMIUM	mg/kg	NA
6010B	COBALT	mg/kg	NA
6010B	IRON	mg/kg	NA
6010B	LEAD	mg/kg	NA
6010B	MAGNESIUM	mg/kg	NA
6010B	NICKEL	mg/kg	NA
6010B	POTASSIUM	mg/kg	NA
6010B	SELENIUM	mg/kg	NA
6010B	SODIUM	mg/kg	NA
6010B	VANADIUM	mg/kg	NA
6010B	ZINC	mg/kg	NA
6020	ANTIMONY	mg/kg	NA
6020	ARSENIC	mg/kg	NA
6020	COPPER	mg/kg	NA
6020	MANGANESE	mg/kg	NA
6020	SILVER	mg/kg	NA
6020	THALLIUM	mg/kg	NA
7471	MERCURY	mg/kg	NA
8081	4,4'-DDD	mg/kg	NA
8081	4,4'-DDE	mg/kg	NA
8081	4,4'-DDT	mg/kg	NA
8081	ALDRIN	mg/kg	NA
8081	ALPHA-BHC	mg/kg	NA
8081	ALPHA-CHLORDANE	mg/kg	NA
8081	BETA-BHC	mg/kg	NA
8081	CHLORDANE	mg/kg	NA
8081	DELTA-BHC	mg/kg	NA
8081	DIELDRIN	mg/kg	NA
8081	ENDOSULFAN I	mg/kg	NA
8081	ENDOSULFAN II	mg/kg	NA
8081	ENDOSULFAN SULFATE	mg/kg	NA
8081	ENDRIN	mg/kg	NA
8081	ENDRIN ALDEHYDE	mg/kg	NA
8081	ENDRIN KETONE	mg/kg	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	NA
8081	GAMMA-CHLORDANE	mg/kg	NA
8081	HEPTACHLOR	mg/kg	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7
		Location Type	Post Construction
		Location ID	PSTC-Staging Pad302
		Field Sample ID	PSTC-StagingPad(302)-SA7-2
		Sampling Date	4/25/2012
		Depth Interval (feet bss)	NA
Analytical Method	Chemical Name	Unit	
8081	HEPTACHLOR EPOXIDE	mg/kg	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA
8081	METHOXYCHLOR	mg/kg	NA
8081	TOXAPHENE	mg/kg	NA
8082	AROCLOR 1016	mg/kg	0.111 U
8082	AROCLOR 1221	mg/kg	0.111 U
8082	AROCLOR 1232	mg/kg	0.111 U
8082	AROCLOR 1242	mg/kg	0.111 U
8082	AROCLOR 1248	mg/kg	0.111 U
8082	AROCLOR 1254	mg/kg	0.111 U
8082	AROCLOR 1260	mg/kg	0.111 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U
8151	2,4,5-T	µg/kg	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA
8151	2,4-D	µg/kg	NA
8151	DINOSEB	µg/kg	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIB	µg/kg	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA
8260	2-BUTANONE (MEK)	µg/kg	NA
8260	2-HEXANONE	µg/kg	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA
8260	ACETONE	µg/kg	NA
8260	ACROLEIN	µg/kg	NA
8260	ACRYLONITRILE	µg/kg	NA
8260	ALLYL CHLORIDE	µg/kg	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7
		Location Type	Post Construction
		Location ID	PSTC-Staging Pad302
		Field Sample ID	PSTC-StagingPad(302)-SA7-2
		Sampling Date	4/25/2012
		Depth Interval (feet bss)	NA
Analytical Method	Chemical Name	Unit	
8260	BENZENE	µg/kg	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA
8260	BROMOFORM	µg/kg	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA
8260	CARBON DISULFIDE	µg/kg	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA
8260	CHLOROBENZENE	µg/kg	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA
8260	CHLOROETHANE	µg/kg	NA
8260	CHLOROFORM	µg/kg	NA
8260	CHLOROMETHANE	µg/kg	NA
8260	CHLOROPRENE	µg/kg	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA
8260	DIBROMOMETHANE	µg/kg	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA
8260	ETHYL METHACRYLATE	µg/kg	NA
8260	ETHYLBENZENE	µg/kg	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA
8260	IODOMETHANE	µg/kg	NA
8260	M,P-XYLENE	µg/kg	NA
8260	METHACRYLONITRILE	µg/kg	NA
8260	METHYL METHACRYLATE	µg/kg	NA
8260	METHYLENE CHLORIDE	µg/kg	NA
8260	O-XYLENE	µg/kg	NA
8260	PENTACHLOROETHANE	µg/kg	NA
8260	PROPIONITRILE	µg/kg	NA
8260	STYRENE	µg/kg	NA
8260	TETRACHLOROETHENE	µg/kg	NA
8260	TOLUENE	µg/kg	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA
8260	TRICHLOROETHENE	µg/kg	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA
8260	VINYL ACETATE	µg/kg	NA
8260	VINYL CHLORIDE	µg/kg	NA
8260	XYLENE (TOTAL)	µg/kg	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA



Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7
		Location Type	Post Construction
		Location ID	PSTC-Staging Pad302
		Field Sample ID	PSTC-StagingPad(302)-SA7-2
		Sampling Date	4/25/2012
		Depth Interval (feet bss)	NA
Analytical Method	Chemical Name	Unit	
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA
8270	1,3-DINITROBENZENE	µg/kg	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA
8270	2,4-DINITROPHENOL	µg/kg	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA
8270	2-CHLOROPHENOL	µg/kg	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA
8270	2-METHYLPHENOL	µg/kg	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA
8270	2-NITROANILINE	µg/kg	NA
8270	2-NITROPHENOL	µg/kg	NA
8270	2-PICOLINE	µg/kg	NA
8270	3&4-METHYLPHENOL	µg/kg	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA
8270	3-NITROANILINE	µg/kg	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA
8270	4-AMINOBIPHENYL	µg/kg	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA
8270	4-CHLOROANILINE	µg/kg	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA
8270	4-NITROANILINE	µg/kg	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA
8270	ACENAPHTHENE	µg/kg	NA
8270	ACENAPHTHYLENE	µg/kg	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7
		Location Type	Post Construction
		Location ID	PSTC-Staging Pad302
		Field Sample ID	PSTC-StagingPad(302)-SA7-2
		Sampling Date	4/25/2012
		Depth Interval (feet bss)	NA
Analytical Method	Chemical Name	Unit	
8270	ACETOPHENONE	µg/kg	NA
8270	ANILINE	µg/kg	NA
8270	ANTHRACENE	µg/kg	NA
8270	BENZIDINE	µg/kg	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA
8270	BENZO[A]PYRENE	µg/kg	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA
8270	BENZYL ALCOHOL	µg/kg	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA
8270	CARBAZOLE	µg/kg	NA
8270	CHLOROBENZILATE	µg/kg	NA
8270	CHRYSENE	µg/kg	NA
8270	DIALATE	µg/kg	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA
8270	DIBENZOFURAN	µg/kg	NA
8270	DIETHYL PHTHALATE	µg/kg	NA
8270	DIMETHOATE	µg/kg	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA
8270	DIPHENYLAMINE	µg/kg	NA
8270	DISULFOTON	µg/kg	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA
8270	FAMPHUR	µg/kg	NA
8270	FLUORANTHENE	µg/kg	NA
8270	FLUORENE	µg/kg	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA
8270	HEXACHLOROETHANE	µg/kg	NA
8270	HEXACHLOROPROPENE	µg/kg	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA
8270	ISODRIN	µg/kg	NA
8270	ISOPHORONE	µg/kg	NA

Table A-4  
SA7 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 7
		Location Type	Post Construction
		Location ID	PSTC-Staging Pad302
		Field Sample ID	PSTC-StagingPad(302)-SA7-2
		Sampling Date	4/25/2012
		Depth Interval (feet bss)	NA
Analytical Method	Chemical Name	Unit	
8270	ISOSAFROLE	µg/kg	NA
8270	KEPONE, SVOC	µg/kg	NA
8270	METHAPYRILENE	µg/kg	NA
8270	METHYL METHANESULFONATE	µg/kg	NA
8270	METHYL PARATHION	µg/kg	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA
8270	NITROBENZENE	µg/kg	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA
8270	O-TOLUIDINE	µg/kg	NA
8270	PARATHION	µg/kg	NA
8270	PENTACHLOROBENZENE	µg/kg	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA
8270	PHENACETIN	µg/kg	NA
8270	PHENANTHRENE	µg/kg	NA
8270	PHENOL	µg/kg	NA
8270	PHORATE	µg/kg	NA
8270	PRONAMIDE	µg/kg	NA
8270	PYRENE	µg/kg	NA
8270	PYRIDINE	µg/kg	NA
8270	SAFROLE	µg/kg	NA
8270	SULFOTEPP	µg/kg	NA
8270	THIONAZIN	µg/kg	NA

Notes:

µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl

R = Result rejected  
SVOC = Semivolatile orgar  
U = Undetected at specified  
UJ = Undetected at specifie  
VOC = Volatile organic cor

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**ATTACHMENT A-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 1

**Direction:** North

**Subject:** Subcontractor using a chipper to process branches and other woody debris

**Date:** 10/5/11

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 2

**Direction:** North

**Subject:** Access road to excavation footprint

**Date:** 10/6/11

**Photographer:** Marc Wahrer





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 3

**Direction:** North

**Subject:** Entrance area

**Date:** 10/11/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 4

**Direction:** North

**Subject:** Access road to excavation footprint

**Date:** 10/12/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 5

**Direction:** North

**Subject:** Access road to excavation footprint

**Date:** 10/13/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 6

**Direction:** North

**Subject:** Access road to excavation footprint

**Date:** 10/13/11

**Photographer:** Marc Wahrer





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 7

**Direction:** North

**Subject:** Laying down geotextile fabric prior to placing soil for access road

**Date:** 10/13/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 8

**Direction:** North

**Subject:** Timber mats in place on access road

**Date:** 10/18/11

**Photographer:** Marc Wahrer





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 9

**Direction:** North

**Subject:** Access road

**Date:** 10/19/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site— SA7

**Photograph No.:** 10

**Direction:** North

**Subject:** Laying geotextile fabric at entrance

**Date:** 10/25/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site – SA7  
**Photograph No.:** 11  
**Direction:** Southwest  
**Subject:** Unloading gravel at the entrance

**Date:** 10/25/11  
**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site – SA7  
**Photograph No.:** 12  
**Direction:** South  
**Subject:** Access road timber mats underwater

**Date:** 10/27/11  
**Photographer:** Marc Wahrer





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 13

**Direction:** North

**Subject:** Loading sediment into a track dumptruck for transport to staging area

**Date:** 3/29/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 14

**Direction:** Northwest

**Subject:** Loading TSCA sediment into truck for off-site transport

**Date:** 3/30/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 15

**Direction:** Northwest

**Subject:** Loading TSCA sediment into a track dumptruck

**Date:** 3/30/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 16

**Direction:** North

**Subject:** Loading backfill sand into a track dumptruck

**Date:** 4/9/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 17

**Direction:** West

**Subject:** Placing backfill sand near the excavation footprint of SA7

**Date:** 4/9/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 18

**Direction:** North

**Subject:** Backfilling activities

**Date:** 4/11/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 19

**Direction:** North

**Subject:** Restoration activities

**Date:** 4/12/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 20

**Direction:** South

**Subject:** Access road to excavation footprint after backfilling with soil

**Date:** 4/16/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 21

**Direction:** North

**Subject:** Grading of soil near the entrance

**Date:** 4/17/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 22

**Direction:** Northeast

**Subject:** Entrance after backfilling and soil grading

**Date:** 4/19/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 24

**Direction:** North

**Subject:** Access road after backfilling and soil grading

**Date:** 4/19/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 25

**Direction:** North

**Subject:** After backfilling and soil grading

**Date:** 4/19/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 26

**Direction:** North

**Subject:** Excavation area after temporary seeding

**Date:** 5/29/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 27

**Direction:** North

**Subject:** After the removal of the access road

**Date:** 5/29/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA7  
**Photograph No.:** 28  
**Direction:** North  
**Subject:** Restoration activities

**Date:** 9/17/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7  
**Photograph No.:** 29  
**Direction:** North  
**Subject:** Planted trees

**Date:** 9/26/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 30

**Direction:** North

**Subject:** Soil conditioning prior to spreading grass seed in the removal area

**Date:** 9/26/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA7

**Photograph No.:** 31

**Direction:** Southeast

**Subject:** Restoration workers spreading seed

**Date:** 9/27/12

**Photographer:** Michael Browning

## **APPENDIX B**

### **SLOPE AREA 6 REPORT PORTAGE CREEK AREA SITE**



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## **LIST OF ATTACHMENTS**

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- B-A Photographic Documentation

# **1. SLOPE AREA BACKGROUND**

## **1.1 SLOPE AREA DESCRIPTION**

SA6 is located south of downtown Kalamazoo, Michigan, and extends north from East Stockbridge Avenue to Lake Street. The approximate geographic coordinates are latitude 42.27851° North and longitude -85.57671° West (**Figure B-1**). The entire footprint of the excavation area, which was divided into fourteen grids, encompasses approximately 31,000 ft<sup>2</sup>. SA6 is surrounded by residential properties and commercial businesses. Portage Creek flows through SA6 from south to north (**Figure B-2**).

## **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from three property owners, providing access to the excavation area from East Stockbridge Avenue to Lake Street. The property owners granted EPA and its contractors permission to establish an access road and support area, to conduct contaminated sediment excavation operations, and to restore the properties after the excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

## **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm excavation depths in Grids 1, 6, 10, 11, and 14 of the excavation area, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal assessment to document existing Site conditions
- Installation of environmental controls to minimize impact of the excavation activities on original Site features
- Clearing and grubbing to allow physical access to the excavation area
- Collection of pre-construction soil samples from the support area

- Construction of an access road
- Construction of sheet pile cofferdams and a sandbag dam
- Completion of a groundwater pump test to characterize the subsurface groundwater level and to better define isolation pump and well point requirements for the isolation dewatering (groundwater diversion) system
- Installation and operation of a by-pass pumping system and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation and node sediment samples obtained from the excavation grids
- Removal of all environmental controls, access road, and pump systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from support area
- Development of an area-specific restoration plan in coordination with property owners(s)

After completion of the Site set-up activities (i.e., installation of the by-pass and groundwater diversion systems, construction of the cofferdams, and installation of environmental controls), ERRS excavated TSCA and non-TSCA PCB-contaminated sediment from Grids 2 - 14, beginning in Grid 2 and continuing from south to north through Grid 14. Additional information on excavation activities is provided in Section 3.

A total of fifteen in-stream sediment core samples (including two duplicate samples) from six different locations, five pre-construction soil samples, eighteen in-stream sediment samples (including four re-confirmation samples and one duplicate sample), six node sediment samples, and five post-construction soil samples were collected prior to, during, and after the excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 through 4.3.

Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information for these activities is provided in Section 5.2.

## 2. PRE-REMOVAL ACTIVITIES

This section discusses pre-removal sampling activities, pre-removal features assessment, the SA6 Site setup activities, and environmental controls. **Attachment B-A** provides photographic documentation of selected pre-removal activities.

### 2.1 PRE-REMOVAL SAMPLING ACTIVITIES

ERRS and START performed pre-excavation sediment sampling on August 30-31, 2011. During this sampling event, one sediment core was collected from Grids 1, 6, 10, and 11, and two sediment cores were collected from Grid 14. These cores were processed and sampled in approximately 12-inch intervals. **Figure B-2** shows the locations of pre-removal sampling grids. All analytical data results for pre-removal sediment samples are presented in **Table B-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses to be conducted. The intent of this sampling was to confirm vertical extent of contamination, to determine if contaminant levels were below TSCA landfill disposal parameters, and to finalize sediment excavation depths within each grid. The samples were shipped to TestAmerica Laboratories of Dayton, Ohio, for PCB analysis. Analytical results verified that sediment contaminant levels for PCBs in Grids 1, 6, 10, 11, and 14 were below TSCA disposal limits. However, due to an earlier sampling event in SA6, the sediments from portions of Grids 13 and 14 were excavated as TSCA sediments, while sediments from Grids 1, 6, 10, and 11 were excavated as non-TSCA sediments.

### 2.2 PRE-REMOVAL FEATURES ASSESSMENT

START recorded photographic and video documentation of the pre-removal features at SA6, including the roadways leading to and from SA6 and the parking lot of the adjacent vehicle maintenance yard. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal assessment of in-place constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment Removal Areas SA6” (Fleis and Vandenbrink Engineering Inc., August 2012) is available upon request. This assessment was used



to determine if any corrective actions or repairs were required once excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of Access Road**

A subcontractor cleared trees and other vegetative cover from the eastern and western banks of SA6. The entire western bank, extending from East Stockbridge Avenue to Lake Street, was cleared in order to allow for the construction of an access road along the entire length of the excavation area. Portions of the eastern bank were cleared to allow for the placement of the bypass system discharge pipes and isolation dewatering system. All clearing and grubbing activities were completed in a manner that protected the root masses of the trees along the creek banks.

After removal of the trees and vegetative cover along the western bank, an access road was constructed along the entire length of the excavation area. The road consisted of wooden timber mats placed on top of 1-inch by 3-inch stones or on top of the existing soils.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-excavation topographic survey of the excavation area in July 2011. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for determining the contaminated sediment excavation surface area within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during the excavation activities. The RTK-GPS equipment ensured that the operators were excavating the sediment and backfilling each grid to the targeted lateral and vertical limits of each grid.

### **2.3.3 Excavation Area Isolation and Dewatering**

A subcontractor installed three sheet pile cofferdams in SA6 to isolate the excavation area and to facilitate dewatering of the contaminated sediments (**Figure B-2**). The first cofferdam was located toward the northern end of Grid 1. It was not possible to excavate Grid 1 due to the proximity to

the East Stockbridge Avenue bridge and the presence of buried utilities within the grid. The second and third cofferdams were located within Grids 6 and 11, respectively. A fourth sheet pile containment area was constructed in front of a large storm water outfall on the east bank. Finally, a sandbag dam was constructed in Grid 14 near the Lake Street bridge (**Figure B-2**). The sandbag dam was constructed instead of a sheet pile cofferdam because of close proximity of Grid 14 to a private residence and the potential impact that driving sheet pile next to the residence might have on its foundation. The sandbag dam consisted of several large, woven polyethylene, flexible “supersacks” filled with clean sand set side by side and wrapped in a polypropylene membrane liner. Only a portion of Grid 14 could be excavated due to the proximity of the sandbag dam to the Lake Street bridge and presence of buried utilities.

To further dry out the creek channel, another subcontractor installed a series of groundwater extraction wells along the eastern and western banks of excavation grids 6-7 through 6-14. The setup consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5-ft centers to an approximate depth of 10ft below the creek bottom. It should be noted that this was a slight variation on design described in the SA6 TM, which called for 2-inch diameter sipper wells installed on 15-foot centers. The sipper wells were connected to a 6-inch-diameter PVC manifold pipe by flexible tubing. The manifold pipe was connected to 6-inch-diameter vacuum pumps that discharged groundwater past the downstream isolation cofferdam. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

#### **2.3.4 By-Pass Pumping**

The by-pass pumping system consisted of two 24-inch pumps located on the west bank of Portage Creek near East Stockbridge Avenue. The system captured creek water upstream of the southernmost (upstream) cofferdam and pumped the water past the sandbag dam constructed immediately south of the Lake Street bridge, discharging onto a rock discharge pad consisting of wire gabion baskets filled with large stones. The gabion baskets dissipated water flow velocity and thus minimized erosion of the creek channel bottom. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed.

## 2.4 ENVIRONMENTAL CONTROLS

As pre-construction and excavation activities began, environmental controls were put into place to minimize the impact of the excavation activities. Many of the environmental controls are specified in the SESC. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filter fabric was installed in storm drain inlets located in adjacent parking lots and along East Stockbridge Avenue so that storm drains would not be impacted by Site operations.
- Construction Entrance/Exit - Site access was established by creating a curb cut immediately north of East Stockbridge Avenue and west of the East Stockbridge Avenue bridge. The access road, which was approximately 15ft wide, consisted of an 8-ounce, non-woven geotextile fabric underlayment with a top layer of 1-inch by 3-inch rock. The curb cut was left in place, at the request of the City of Kalamazoo.
- Tire Wash Station - A portable tire wash station was set up between the support area and south access road described above. After each truck was loaded, a crew member sprayed off soil from the truck tires as the truck passed through the station prior to exiting the Site. Wash waters were pumped to a temporary storage tank and transported to the WWTP to maintain suitable storage capacity.
- Paved Surface Management - A power broom was used to perform housekeeping of paved work areas and adjacent roadways impacted during excavation activities.
- Dust Control - A water truck applied water for dust control within the support area and truck entrance/exit as necessary.
- Fuel Station – Two 500-gallon fuel cells with secondary containment were used to power the by-pass pumps. Fire extinguishers and an emergency spill control kit were placed near the tanks. The spill kit included drums, oil dry, adsorbent pads, and a boom to address small spills.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area north of the Lake Street bridge.
- Silt Fencing and Sand Bags - Silt fencing and sand bags were installed along the creek banks in order to stabilize the sediments and to prevent erosion into the creek channel.
- Sump Debris Screen - A wire mesh screen on top of the by-pass pumping system sump removed floating debris and prevented debris from entering and clogging or blocking the pump intake pipes. Subcontractors cleared the screen on a daily basis.
- Rock Discharge Pad - A rock discharge pad was installed, downstream of the isolated area, where the discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stones to dissipate discharge velocity and reduce erosion of the creek bed.

- **Turbidity Monitoring Stations** - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the cofferdams installed in the slope area. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at the turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### **3. EXCAVATION/DISPOSAL ACTIVITIES**

The excavation of contaminated sediments commenced in May 2012 in Grid 2 and continued from south to north through Grid 14, which was completed in June 2012. **Attachment B-A** provides photographic documentation of the excavation activities. The table below lists the excavation details, including targeted excavation depths. Grids 2 - 5 and half of Grid 6 were excavated “in the wet” because dewatering was not recommended in these grids due to the presence of a sewer force main beneath the creek bed. An isolation (groundwater) dewatering system was installed and excavation proceeded from the northern half of Grid 6 - 14.

## SA6 EXCAVATION DETAILS

Grid	Target Excavation Depth (inches bss)	Final Excavation Depth (inches bss)	Surface Area of Excavated Sediment (ft <sup>2</sup> )	Volume of Excavated Sediment (yd <sup>3</sup> )
1	-	-	-	-
2	30	30	2342	217
3	30	30	2078	192
4	30	30	2168	201
5	36	36	2257	251
6A	36	36	1267	141
6B	36	42	1267	164
7	30	36	2057	229
8	18	30	2028	188
9	30	36	1978	220
10	36	42	2004	260
11	30	48	1853	275
12	30	42	2019	262
13	30	30	1972	183
14	30	36	1317	146

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = Cubic yard

In order to access the contaminated sediments, a long reach excavator was positioned on timber mats placed along the west creek bank. If the sediments were sufficiently dry, the long reach excavator loaded the excavated material directly into tri-axle dump trucks that were capable of hauling approximately 10yd<sup>3</sup> of sediment. After loading, the dump trucks hauled the sediment directly to the John Street staging pad. If the sediments were too wet for direct shipment, the excavated material was loaded into a 30yd<sup>3</sup> mixing box, where a corn cob-based absorbent material was mixed in by a second excavator, solidifying the sediment before shipment to the John Street staging pad. This practice avoided any leakage of potentially contaminated liquids from dump trucks onto roadways between the excavation area and the John Street staging pad. Tri-axle dump trucks followed a truck route specified in the TCP.

All contaminated sediments were transported to the John Street staging area, where tri-axle dump trucks emptied their loads onto a staging pad designed to contain contaminated sediments along with any residual water or run-off from precipitation. Before returning to the excavation support area, the tri-axle dump trucks passed through a tire wash station positioned on the staging pad. All



potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

Sampling was performed throughout various stages of the project as discussed below, from pre-construction soil sampling to post-construction soil sampling.

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to the commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils along the western bank of the excavation area. Each sample consisted of soil collected from six previously established node points. Due to the close proximity of an asphalt road to the western bank of Grids 9 - 11, no pre-construction samples were collected from the western bank of these grids. All five samples were analyzed for TCL VOCs, TCL SVOCs, TAL metals, and PCBs. All analytical data results for the pre-construction soil samples are presented in **Table B-2**. Analytical data validation reports are available upon request.

### **4.2 CONFIRMATION AND NODE SEDIMENT SAMPLING**

During and after the excavation of the contaminated sediments, START and EPA collected confirmation and node sediment samples. The removal grids these samples were collected in are presented in **Figure B-2**. All analytical data results for the confirmation and node sediment samples are presented in **Table B-3**. Analytical data validation reports are available upon request.

Eighteen confirmation sediment samples were collected from Grids 2 through 14, and six node sediment samples were collected from Grid 8. The eighteen confirmation sediment samples included one duplicate sediment sample from Grid 7 and four follow-up confirmation sediment samples from Grids 7 - 10. The confirmation samples were analyzed for PCBs, and the results were evaluated against the performance standard designated for stream sediments of less than or equal to 10 mg/kg of PCBs, with a performance standard goal of 1 mg/kg.

The node samples were collected for statistical analysis of project quality objectives for the overall Superfund Site operable unit. The six discrete node locations used for each node sample coincided with the six node locations used for the composite confirmation samples.

#### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as the pre-construction samples, and used the same grid areas and sample node locations (**Figure B-2**). All analytical data results for the post-construction soil samples are presented in **Table B-4**. Analytical data validation reports are available upon request.

Five six-point composite soil samples were collected from the by-pass pump staging area and along the western bank. Each sample was analyzed for TCL VOCs, TCL SVOCs, TAL metals, and PCBs. To ensure that the work activities did not contaminate the support areas, the results of the post-construction soil samples were compared to results of the pre-construction soil samples.

#### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the excavation areas during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure B-3** shows the PDR monitoring locations.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

## **5. POST-REMOVAL ACTIVITIES**

### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once the excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Area SA6” (Fleis and Vandenbrink Engineering Inc., August 2013), available upon request.

### **5.2 RESTORATION**

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment B-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of the excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing the Site infrastructure and equipment required to conduct the sediment excavation operations and making any necessary repairs to the properties and constructed features resulting from the sediment excavation operations (Note: The curb cut created west of Portage Creek, on the north side of East Stockbridge Avenue, was left in place at the request of the City of Kalamazoo). The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until the vegetation was re-established (see Section 5.2.2).

#### **5.2.1 Bank Stabilization and Creek Channel Backfilling**

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the eastern and western banks. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inch) were placed every three feet on the waterside and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.

Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal structure feature assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal structure feature assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from the excavation activities. All corrective actions necessary to repair any damaged features resulting from the sediment excavation operations were completed. EPA coordinated with the appropriate stakeholders to verify their acceptance of the Site repairs and conducted final Site walk-through inspections with the property owners.

### **5.2.2 Re-vegetation**

An area-specific restoration plan (available upon request) was completed in coordination with the property owners and in accordance with the overall Site Restoration Plan. Once the overall area was re-graded with fresh topsoil, the area-specific restoration plan was implemented by a subcontractor. The area-specific restoration plan consisted of applying a grass seed/fertilizer mix with straw cover to prevent erosion, along with trees, shrubs and vegetative plugs throughout the impacted areas. In addition, all fencing removed from the west bank was replaced with new fencing as requested by the property owner.

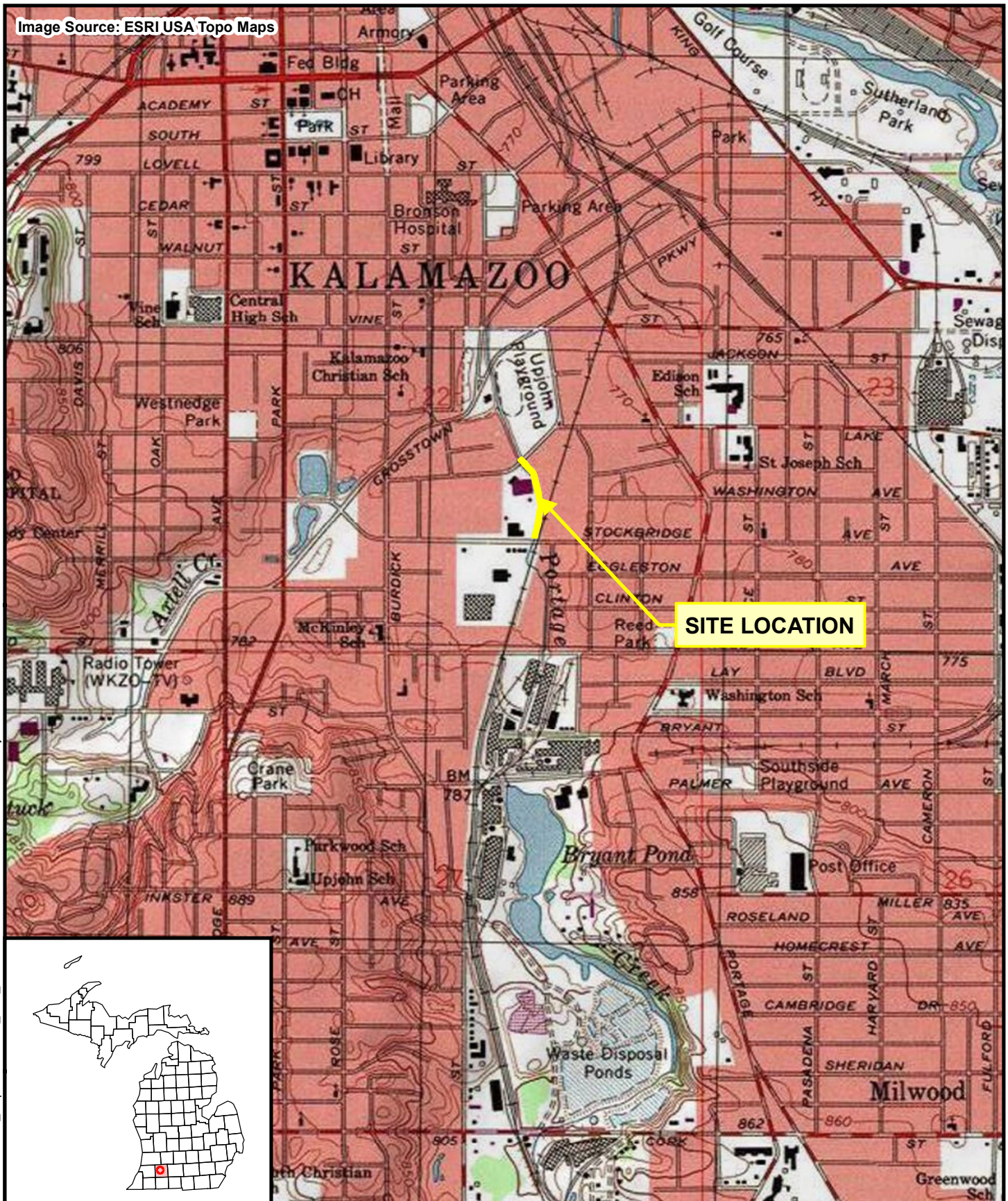
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## FIGURES

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Image Source: ESRI USA Topo Maps



#### Legend

Site Boundary

0 2,000 Feet



Prepared For:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



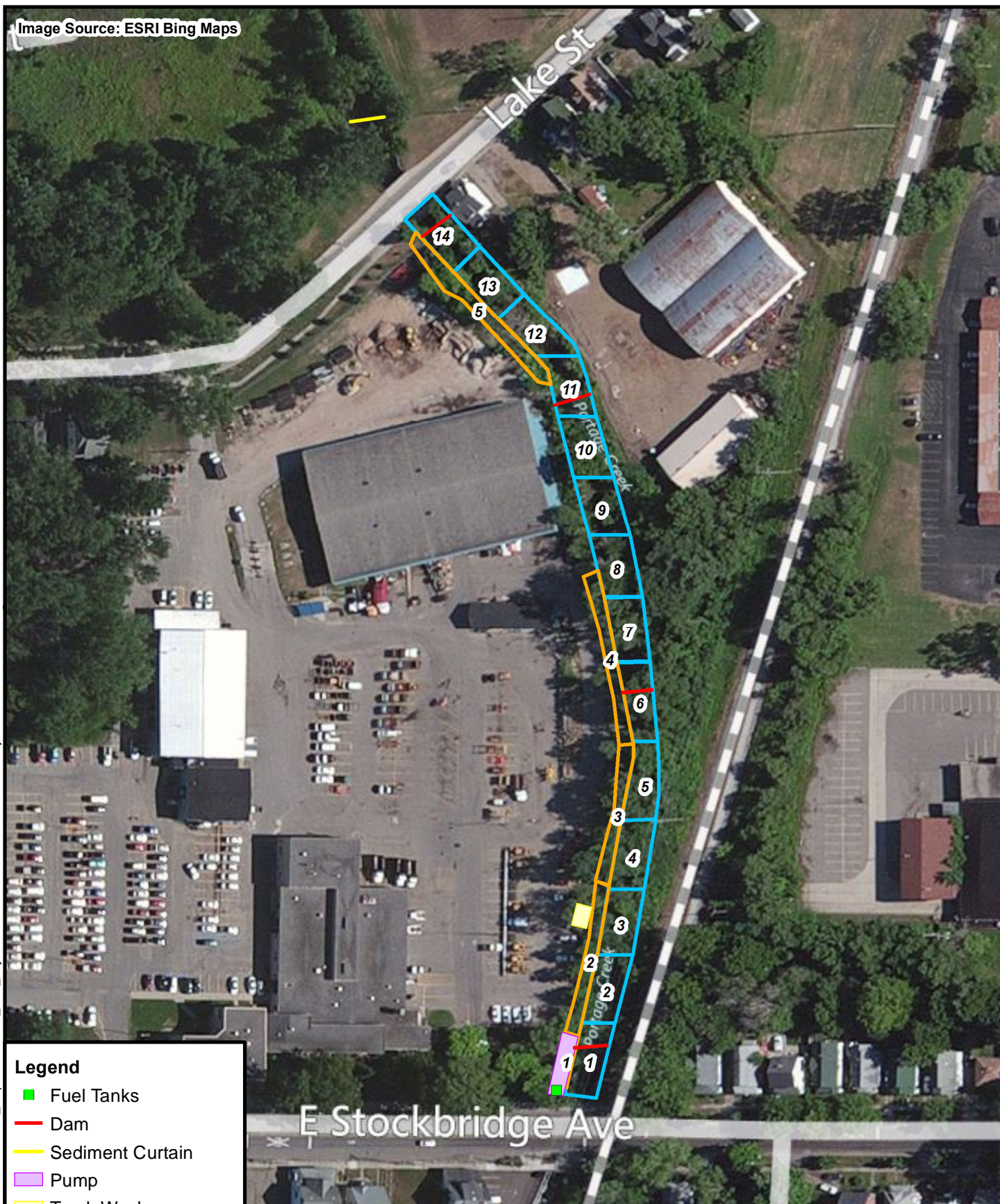
Prepared By:  
**WESTON SOLUTIONS, INC**

360 East Maple Road  
Suite R  
Troy, Michigan 48083

**Figure B-1**  
Site Location Map  
Portage Creek Area SA6  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



#### Legend

- Fuel Tanks
- Dam
- Sediment Curtain
- Pump
- Truck Wash
- Construction Grids
- Removal Grids

0 175 Feet



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Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
**WESTON SOLUTIONS, INC**

360 East Maple Road  
Suite R  
Troy, Michigan 48083

**Figure B-2**  
Site Layout Map  
Portage Creek Area SA6  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps

Ct

Lake St

E Stockbridge Ave

### Legend

- DataRAM
- Monitoring Locations
- Fuel Tanks
- Dam
- Sediment Curtain
- Pump
- Truck Wash
- Removal Grids

0 200 Feet



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**U.S. EPA REGION V**

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**Figure B-3**  
DataRAM Location Monitoring Map  
Portage Creek Area SA6  
Kalamazoo, Kalamazoo County,  
Michigan

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## TABLES

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**Table B-1**  
**SA6 Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA6-1-1	PRSD-SA6-6-1	PRSD-SA6-6-1	PRSD-SA6-10-1
		Field Sample ID	PRSD-SA6-1-1 (0-12")	PRSD-SA6-6-1 (0-12")	PRSD-SA6-6-1 (12-24")	PRSD-SA6-10-1 (0-12")
		Sampling Date	8/31/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	0-12	0-12	12-24	0-12
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	AROCLOR 1221	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	AROCLOR 1232	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	AROCLOR 1242	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	AROCLOR 1248	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	AROCLOR 1254	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	AROCLOR 1260	mg/kg	0.595 U	0.66 U	0.584 U	0.582 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA6-10-1	PRSD-SA6-10-1	PRSD-SA6-11-1	PRSD-SA6-11-1
		Field Sample ID	PRSD-SA6-10-1 (12-24")	PRSD-SA6-10-1 (24-30")	PRSD-SA6-11-1 (0-12")	PRSD-SA6-11-1 (12-24")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	12-24	24-30	0-12	12-24
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.591 U	0.6 UJ	0.552 U	0.59 U
8082	AROCLOR 1221	mg/kg	0.591 U	0.6 U	0.552 U	0.59 U
8082	AROCLOR 1232	mg/kg	0.591 U	0.6 U	0.552 U	0.59 U
8082	AROCLOR 1242	mg/kg	0.591 U	6.66	0.552 U	3.23
8082	AROCLOR 1248	mg/kg	0.591 U	0.6 U	0.552 U	0.59 U
8082	AROCLOR 1254	mg/kg	0.591 U	0.6 U	0.552 U	0.59 U
8082	AROCLOR 1260	mg/kg	0.591 U	0.6 UJ	0.552 U	0.59 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	6.66	0 U	3.23

**Table B-1**  
**SA6 Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA6-11-1	PRSD-SA6-11-1	PRSD-SA6-14-1	PRSD-SA6-14-1
		Field Sample ID	PRSD-SA6-11-1 (24-26")	PRSD-SA6-DUP3	PRSD-SA6-14-1 (0-12")	PRSD-SA6-14-1 (12-22")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	24-26	NA	0-12	12-22
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.594 U	0.555 U	0.602 UJ	0.678 U
8082	AROCLOR 1221	mg/kg	0.594 U	0.555 U	0.602 UJ	0.678 U
8082	AROCLOR 1232	mg/kg	0.594 U	0.555 U	0.602 UJ	0.678 U
8082	AROCLOR 1242	mg/kg	3.98	2.11	0.602 UJ	0.678 U
8082	AROCLOR 1248	mg/kg	0.594 U	0.555 U	0.602 UJ	0.678 U
8082	AROCLOR 1254	mg/kg	0.594 U	0.555 U	0.602 UJ	0.678 U
8082	AROCLOR 1260	mg/kg	0.594 U	0.555 U	0.602 UJ	0.678 U
8082	Total PCBs (Sum of Detections)	mg/kg	3.98	2.11	0 U	0 U

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA6-14-2	PRSD-SA6-14-2	PRSD-SA6-14-2
		Field Sample ID	PRSD-SA6-14-2 (0-12")	PRSD-SA6-14-2 (12-20")	PRSD-SA6-DUP4
		Sampling Date	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	0-12	12-20	0-0
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.633 U	0.596 U	0.622 U
8082	AROCLOR 1221	mg/kg	0.633 U	0.596 U	0.622 U
8082	AROCLOR 1232	mg/kg	0.633 U	0.596 U	0.622 U
8082	AROCLOR 1242	mg/kg	1.72	3.27	0.622 U
8082	AROCLOR 1248	mg/kg	0.633 U	0.596 U	0.622 U
8082	AROCLOR 1254	mg/kg	0.633 U	0.596 U	0.622 U
8082	AROCLOR 1260	mg/kg	0.633 U	0.596 U	0.622 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.72	3.27	0 U

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit



Table B-2  
SA6 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-DewatPump-SA6-1	PREC-Haul Road-SA6-1	PREC-Haul Road-SA6-2	PREC-Haul Road-SA6-3	PREC-Haul Road-SA6-4
		Field Sample ID	PREC-DewateringPumps-SA6-1	PREC-Haul Road-SA6-1-041812	PREC-Haul Road-SA6-2-041812	PREC-Haul Road-SA6-3-041812	PREC-Haul Road-SA6-4-041812
		Sampling Date	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	3810 J+	3960	1920	3870	6350
6020	ANTIMONY	mg/kg	0.26 J-	0.506	0.265	0.332	0.367 U
6020	ARSENIC	mg/kg	2.64	4.61	6.19	7.27	6.46
6010B	BARIUM	mg/kg	44.5	315	24.5	53.8	65
6010B	BERYLLIUM	mg/kg	0.975 U	0.938 U	0.994 U	1.01 U	0.985 U
6010B	CADMIUM	mg/kg	5.84 U	5.62 U	5.95 U	6.04 U	5.9 U
6010B	CALCIUM	mg/kg	9630 J	12700	7170	57400	23800
6010B	CHROMIUM	mg/kg	9.63	24.1	7.92 U	10.8	14.9
6010B	COBALT	mg/kg	3.89 U	3.74 U	3.96 U	4.02 U	3.93 U
6020	COPPER	mg/kg	11.9	22.3	16.4	25.3	11.4
6010B	IRON	mg/kg	7220 J	19200	5350	8470	13000
6010B	LEAD	mg/kg	28.7	139	29	57.9	38.7
6010B	MAGNESIUM	mg/kg	3380 J	4380	2580	27000	8470
6020	MANGANESE	mg/kg	334 J+	324	356	293	625
7471	MERCURY	mg/kg	0.101	0.0195	0.316	0.02	0.0291
6010B	NICKEL	mg/kg	5.72	12	3.91	7.43	10.5
6010B	POTASSIUM	mg/kg	388	461	247	487	777
6010B	SELENIUM	mg/kg	19.4 U	18.7 U	19.8 U	20.1 U	19.7 U
6020	SILVER	mg/kg	0.112 U	0.118 U	0.115 U	0.117 U	0.122 U
6010B	SODIUM	mg/kg	194 U	187 U	198 U	201 U	230
6020	THALLIUM	mg/kg	0.224 U	0.236 U	0.23 U	0.235 U	0.245 U
6010B	VANADIUM	mg/kg	9.75 U	12.8	9.94 U	11.6	16.5
6010B	ZINC	mg/kg	50	694	58.5	121	119
8082	AROCLOR 1016	mg/kg	0.119 U	0.117 U	0.119 U	0.128 U	0.123 U
8082	AROCLOR 1221	mg/kg	0.119 U	0.117 U	0.119 U	0.128 U	0.123 U
8082	AROCLOR 1232	mg/kg	0.119 U	0.117 U	0.119 U	0.128 U	0.123 U
8082	AROCLOR 1242	mg/kg	0.119 U	0.117 U	0.119 U	0.128 U	0.123 U
8082	AROCLOR 1248	mg/kg	0.119 U	0.117 U	0.119 U	0.128 U	0.123 U
8082	AROCLOR 1254	mg/kg	0.119 U	0.117 U	0.119 U	0.128 U	0.123 U
8082	AROCLOR 1260	mg/kg	0.119 U	0.117 U	0.595	3.15	0.123 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0.595	3.15	0 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,1-DICHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,1-DICHLOROETHENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 UJ
8260	1,2-DICHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U



Table B-2  
SA6 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-DewatPump-SA6-1	PREC-Haul Road-SA6-1	PREC-Haul Road-SA6-2	PREC-Haul Road-SA6-3	PREC-Haul Road-SA6-4
		Field Sample ID	PREC-DewateringPumps-SA6-1	PREC-Haul Road-SA6-1-041812	PREC-Haul Road-SA6-2-041812	PREC-Haul Road-SA6-3-041812	PREC-Haul Road-SA6-4-041812
		Sampling Date	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,2-DICHLOROPROPANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 UJ
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 UJ
8260	2-BUTANONE (MEK)	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 U
8260	2-HEXANONE	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 U
8260	ACETONE	µg/kg	120 U	124 U	124 U	142 U	128 U
8260	ACROLEIN	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 U
8260	ACRYLONITRILE	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 U
8260	ALLYL CHLORIDE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	BENZENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	BROMODICHLOROMETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	BROMOFORM	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	12 U	12.4 U	12.4 U	14.2 U	12.8 U
8260	CARBON DISULFIDE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CARBON TETRACHLORIDE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CHLOROBENZENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CHLORODIBROMOMETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CHLOROFORM	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CHLOROMETHANE	µg/kg	12 U	12.4 U	12.4 U	14.2 U	12.8 U
8260	CHLOROPRENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	DIBROMOMETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	ETHYL METHACRYLATE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	ETHYLBENZENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	IODOMETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	M,P-XYLENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	METHACRYLONITRILE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	METHYL METHACRYLATE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	METHYLENE CHLORIDE	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 UJ
8260	PENTACHLOROETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	PROPIONITRILE	µg/kg	59.8 U	62.2 U	62.2 U	70.8 U	64.1 U
8260	STYRENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	TETRACHLOROETHENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	TOLUENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U

Table B-2  
SA6 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-DewatPump-SA6-1	PREC-Haul Road-SA6-1	PREC-Haul Road-SA6-2	PREC-Haul Road-SA6-3	PREC-Haul Road-SA6-4
		Field Sample ID	PREC-DewateringPumps-SA6-1	PREC-Haul Road-SA6-1-041812	PREC-Haul Road-SA6-2-041812	PREC-Haul Road-SA6-3-041812	PREC-Haul Road-SA6-4-041812
		Sampling Date	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	TRICHLOROETHENE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	VINYL ACETATE	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8260	VINYL CHLORIDE	µg/kg	2.39 U	2.49 U	2.49 U	2.83 U	2.56 U
8260	XYLENE (TOTAL)	µg/kg	5.98 U	6.22 U	6.22 U	7.08 U	6.41 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	1,3,5-TRINITROBENZENE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	1,3-DINITROBENZENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	1,4-NAPHTHOQUINONE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	1-NAPHTHYLAMINE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2,4-DICHLOROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2,4-DIMETHYLPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2,4-DINITROPHENOL	µg/kg	3520 U	3490 U	3510 U	3740 U	3600 U
8270	2,4-DINITROTOLUENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	2,6-DICHLOROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2,6-DINITROTOLUENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	2-CHLORONAPHTHALENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	2-CHLOROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	2-METHYLPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2-NAPHTHYLAMINE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	2-NITROANILINE	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2-NITROPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	2-PICOLINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	3&4-METHYLPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	8800 U	8710 U	8770 U	9360 U	8990 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	3-METHYLCHOLANTHRENE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	3-NITROANILINE	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	4-AMINOBIPHENYL	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	880 U	871 U	877 U	936 U	899 U

Table B-2  
SA6 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-DewatPump-SA6-1	PREC-Haul Road-SA6-1	PREC-Haul Road-SA6-2	PREC-Haul Road-SA6-3	PREC-Haul Road-SA6-4
		Field Sample ID	PREC-DewateringPumps-SA6-1	PREC-Haul Road-SA6-1-041812	PREC-Haul Road-SA6-2-041812	PREC-Haul Road-SA6-3-041812	PREC-Haul Road-SA6-4-041812
		Sampling Date	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	4-CHLOROANILINE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	4-NITROANILINE	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	4-NITROPHENOL, SVOC	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	4200 U	4040 U
8270	ACENAPHTHENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	ACENAPHTHYLENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	ACETOPHENONE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	ANILINE	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	ANTHRACENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BENZIDINE	µg/kg	8800 U	8710 U	8770 U	9360 U	8990 U
8270	BENZO(A)ANTHRACENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BENZO[A]PYRENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BENZO[B]FLUORANTHENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BENZO[K]FLUORANTHENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BENZYL ALCOHOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	CARBAZOLE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	CHLOROBENZILATE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	CHRYSENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DIALATE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DIBENZOFURAN	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DIETHYL PHTHALATE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DIMETHOATE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	DIMETHYL PHTHALATE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	DIPHENYLAMINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	DISULFOTON	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	ETHYL METHANESULFONATE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	FAMPHUR	µg/kg	1980 U	1960 U	1970 U	2100 U	2020 U
8270	FLUORANTHENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	FLUORENE	µg/kg	880 U	871 U	877 U	936 U	899 U

Table B-2  
SA6 Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-DewatPump-SA6-1	PREC-Haul Road-SA6-1	PREC-Haul Road-SA6-2	PREC-Haul Road-SA6-3	PREC-Haul Road-SA6-4
		Field Sample ID	PREC-DewateringPumps-SA6-1	PREC-Haul Road-SA6-1-041812	PREC-Haul Road-SA6-2-041812	PREC-Haul Road-SA6-3-041812	PREC-Haul Road-SA6-4-041812
		Sampling Date	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	HEXACHLOROBENZENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	3520 U	3490 U	3510 U	3740 U	3600 U
8270	HEXACHLOROETHANE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	HEXACHLOROPROPENE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	ISODRIN	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	ISOPHORONE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	ISOSAFROLE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	KEPONE, SVOC	µg/kg	44900 U	44500 U	44700 U	47800 U	45900 U
8270	METHAPYRILENE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	METHYL METHANESULFONATE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	METHYL PARATHION	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	NAPHTHALENE, SVOC	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	NITROBENZENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	N-NITROSODIETHYLAMINE	µg/kg	5930 U	5870 U	5900 U	6300 U	6050 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	N-NITROSOMORPHOLINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	N-NITROSOPIPERIDINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	N-NITROSOPYRROLIDINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	O-TOLUIDINE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PARATHION	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PENTACHLOROBENZENE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PENTACHLORONITROBENZENE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	PHENACETIN	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PHENANTHRENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	PHENOL	µg/kg	1760 U	1740 U	1750 U	1870 U	1800 U
8270	PHORATE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PRONAMIDE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	PYRENE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	PYRIDINE	µg/kg	880 U	871 U	877 U	936 U	899 U
8270	SAFROLE	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	SULFOTEPP	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U
8270	THIONAZIN	µg/kg	3950 U	3910 U	3940 U	4200 U	4040 U

Notes:  
µg/kg = Microgram per kilogram

Table B-3  
SA6 Confirmation and Node Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA6-14	CSD-SA6-10	CSD-SA6-10	CSD-SA6-11
		Field Sample ID	CSD-SA6-14-061512	CSD-SA6-10-060612	CSD-SA6-10-061112B	CSD-SA6-11-061412
		Sampling Date	6/15/2012	6/6/2012	6/11/2012	6/14/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.651 U	0.15 U	0.049 U	0.046 U
8082	AROCLOR 1221	mg/kg	0.651 U	0.15 U	0.049 U	0.046 U
8082	AROCLOR 1232	mg/kg	0.651 U	0.15 U	0.049 U	0.046 U
8082	AROCLOR 1242	mg/kg	0.651 U	1.06	0.55	0.54 J
8082	AROCLOR 1248	mg/kg	0.651 U	0.15 U	0.049 U	0.046 U
8082	AROCLOR 1254	mg/kg	0.651 U	0.15 U	0.26	0.046 U
8082	AROCLOR 1260	mg/kg	0.651 U	0.15 U	0.078	0.046 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	1.06	0.888	0.54

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA6-5	CSD-SA6-6	CSD-SA6-7	CSD-SA6-7
		Field Sample ID	CSD-SA6-5-052212	CSD-SA6-6-052212	CSD-SA6-7-060412	CSD-SA6-7-060412-DP
		Sampling Date	5/24/2012	5/24/2012	6/4/2012	6/4/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.145 U	0.14 U	0.132 UJ	0.123 U
8082	AROCLOR 1221	mg/kg	0.145 U	0.14 U	0.132 U	0.123 U
8082	AROCLOR 1232	mg/kg	0.145 U	0.14 U	0.132 U	0.123 U
8082	AROCLOR 1242	mg/kg	0.874	0.537	1.22	0.643
8082	AROCLOR 1248	mg/kg	0.145 U	0.14 U	0.132 U	0.123 U
8082	AROCLOR 1254	mg/kg	0.145 U	0.14 U	0.132 U	0.123 U
8082	AROCLOR 1260	mg/kg	0.145 U	0.14 U	0.132 U	0.123 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.874	0.537	1.22	0.643



Table B-3  
SA6 Confirmation and Node Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA6-12	CSD-SA6-13	CSD-SA6-2	CSD-SA6-3
		Field Sample ID	CSD-SA6-12-061412	CSD-SA6-13-061412	CSD-SA6-2-052212	CSD-SA6-3-052212
		Sampling Date	6/14/2012	6/14/2012	5/22/2012	5/22/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.052 U	0.045 U	0.132 U	0.129 U
8082	AROCLOR 1221	mg/kg	0.052 U	0.045 U	0.132 U	0.129 U
8082	AROCLOR 1232	mg/kg	0.052 U	0.045 U	0.132 U	0.129 U
8082	AROCLOR 1242	mg/kg	0.72 J	0.21	0.62	0.775
8082	AROCLOR 1248	mg/kg	0.052 U	0.045 U	0.132 U	0.129 U
8082	AROCLOR 1254	mg/kg	0.052 U	0.046	0.132 U	0.129 U
8082	AROCLOR 1260	mg/kg	0.052 U	0.045 U	0.132 U	0.129 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.72	0.256	0.62	0.775

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA6-7	CSD-SA6-8	CSD-SA6-8	CSD-SA6-9
		Field Sample ID	CSD-SA6-7-060712B	CSD-SA6-8-060512	CSD-SA6-8-061112B	CSD-SA6-9-060612
		Sampling Date	6/7/2012	6/5/2012	6/11/2012	6/6/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.134 U	0.142 U	0.05 U	0.16 U
8082	AROCLOR 1221	mg/kg	0.134 U	0.142 U	0.05 U	0.16 U
8082	AROCLOR 1232	mg/kg	0.134 U	0.142 U	0.05 U	0.16 U
8082	AROCLOR 1242	mg/kg	0.654	1.04	2.6	1.13
8082	AROCLOR 1248	mg/kg	0.134 U	0.142 U	0.05 U	0.16 U
8082	AROCLOR 1254	mg/kg	0.134 U	0.142 U	0.58	0.16 U
8082	AROCLOR 1260	mg/kg	0.134 U	2.71	0.57	0.16 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.654	3.75	3.75	1.13

Table B-3  
SA6 Confirmation and Node Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Confirmation	Confirmation	Node	Node
		Location ID	CSD-SA6-4	CSD-SA6-9	NSD-SA6-8-1	NSD-SA6-8-2
		Field Sample ID	CSD-SA6-4-052213	CSD-SA6-9-061112B	NSD-SA6-8-1-060512	NSD-SA6-8-2-060512
		Sampling Date	5/23/2012	6/11/2012	6/5/2012	6/5/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.15 U	0.046 U	0.117 U	0.177 U
8082	AROCLOR 1221	mg/kg	0.15 U	0.046 U	0.117 U	0.177 U
8082	AROCLOR 1232	mg/kg	0.15 U	0.046 U	0.117 U	0.177 U
8082	AROCLOR 1242	mg/kg	0.15 U	1.2	0.584 U	1.35
8082	AROCLOR 1248	mg/kg	0.15 U	0.046 U	0.117 U	0.177 U
8082	AROCLOR 1254	mg/kg	0.15 U	0.23	0.117 U	0.177 U
8082	AROCLOR 1260	mg/kg	0.15 U	0.11	4.13 J+	0.195
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	1.54	4.13	1.545

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Node	Node	Node	Node
		Location ID	NSD-SA6-8-3	NSD-SA6-8-4	NSD-SA6-8-5	NSD-SA6-8-6
		Field Sample ID	NSD-SA6-8-3-060512	NSD-SA6-8-4-060512	NSD-SA6-8-5-060512	NSD-SA6-8-6-060512
		Sampling Date	6/5/2012	6/5/2012	6/5/2012	6/5/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.168 U	0.124 U	0.164 U	0.123 U
8082	AROCLOR 1221	mg/kg	0.168 U	0.124 U	0.164 U	0.123 U
8082	AROCLOR 1232	mg/kg	0.168 U	0.124 U	0.164 U	0.123 U
8082	AROCLOR 1242	mg/kg	26.2	0.263	0.538	0.621
8082	AROCLOR 1248	mg/kg	0.168 U	0.124 U	0.164 U	0.123 U
8082	AROCLOR 1254	mg/kg	0.168 U	0.124 U	0.164 U	0.123 U
8082	AROCLOR 1260	mg/kg	0.168 U	0.124 U	0.164 U	0.123 U
8082	Total PCBs (Sum of Detections)	mg/kg	26.2	0.263	0.538	0.621

Notes:  
bss = Below sediment surface  
ID = Identification  
J = Estimated result

mg/kg = Milligram per kilogram  
NA = Not Applicable  
PCB = Polychlorinated biphenyl

UJ = Undetected at specified estimated reporting limit  
U = Undetected at specified reporting limit

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction
		Location ID	PSTC-DewatPump-SA6-1	PSTC-Haul Road-SA6-1
		Field Sample ID	PSTC-DewateringPumps-SA6-1	PSTC-Haul Road-SA6-1-070912
		Sampling Date	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
6010B	ALUMINUM	mg/kg	3110 J+	3920
6020	ANTIMONY	mg/kg	0.217 U	0.231
6020	ARSENIC	mg/kg	4.46	5.75
6010B	BARIUM	mg/kg	38.2	58.6
6010B	BERYLLIUM	mg/kg	0.894 U	0.846 U
6010B	CADMIUM	mg/kg	5.35 U	5.07 U
6010B	CALCIUM	mg/kg	64900 J	19500
6010B	CHROMIUM	mg/kg	8.92	48.4
6010B	COBALT	mg/kg	3.56 U	3.38 U
6020	COPPER	mg/kg	12.6	22.3
6010B	IRON	mg/kg	6300 J+	19000
6010B	LEAD	mg/kg	24.9	72.2
6010B	MAGNESIUM	mg/kg	35600	4280
6020	MANGANESE	mg/kg	337	368
7471	MERCURY	mg/kg	0.146	0.448
6010B	NICKEL	mg/kg	5.44	14.7
6010B	POTASSIUM	mg/kg	404	587
6010B	SELENIUM	mg/kg	17.8 U	16.9 U
6020	SILVER	mg/kg	0.175	0.101 U
6010B	SODIUM	mg/kg	178 U	169 U
6020	THALLIUM	mg/kg	0.217 U	0.201 U
6010B	VANADIUM	mg/kg	10.9	16.1
6010B	ZINC	mg/kg	43.2 J+	300
8082	AROCLOR 1016	mg/kg	0.109 UJ	0.105 UJ
8082	AROCLOR 1221	mg/kg	0.109 UJ	0.105 UJ
8082	AROCLOR 1232	mg/kg	0.109 UJ	0.105 UJ
8082	AROCLOR 1242	mg/kg	0.109 UJ	0.105 UJ
8082	AROCLOR 1248	mg/kg	0.109 UJ	0.105 UJ
8082	AROCLOR 1254	mg/kg	0.109 UJ	0.105 UJ
8082	AROCLOR 1260	mg/kg	0.109 UJ	0.105 UJ
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	1,1-DICHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	1,1-DICHLOROETHENE	µg/kg	5.46 U	5.17 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	5.46 U	5.17 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	5.46 U	5.17 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	5.46 U	5.17 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	5.46 U	5.17 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	5.46 U	5.17 U
8260	1,2-DICHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	5.46 U	5.17 U

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction
		Location ID	PSTC-DewatPump-SA6-1	PSTC-Haul Road-SA6-1
		Field Sample ID	PSTC-DewateringPumps-SA6-1	PSTC-Haul Road-SA6-1-070912
		Sampling Date	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8260	1,2-DICHLOROPROPANE	µg/kg	5.46 U	5.17 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	5.46 U	5.17 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	5.46 U	5.17 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	5.46 U	5.17 U
8260	2-BUTANONE (MEK)	µg/kg	54.6 UJ	51.7 UJ
8260	2-HEXANONE	µg/kg	54.6 U	51.7 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	54.6 U	51.7 U
8260	ACETONE	µg/kg	109 U	103 U
8260	ACROLEIN	µg/kg	54.6 U	51.7 U
8260	ACRYLONITRILE	µg/kg	54.6 U	51.7 U
8260	ALLYL CHLORIDE	µg/kg	5.46 U	5.17 U
8260	BENZENE	µg/kg	5.46 U	5.17 U
8260	BROMODICHLOROMETHANE	µg/kg	5.46 U	5.17 U
8260	BROMOFORM	µg/kg	5.46 U	5.17 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	10.9 U	10.3 U
8260	CARBON DISULFIDE	µg/kg	5.46 U	5.17 U
8260	CARBON TETRACHLORIDE	µg/kg	5.46 U	5.17 U
8260	CHLOROBENZENE	µg/kg	5.46 U	5.17 U
8260	CHLORODIBROMOMETHANE	µg/kg	5.46 U	5.17 U
8260	CHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	CHLOROFORM	µg/kg	5.46 U	5.17 U
8260	CHLOROMETHANE	µg/kg	10.9 U	10.3 U
8260	CHLOROPRENE	µg/kg	5.46 U	5.17 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	5.46 U	5.17 U
8260	DIBROMOMETHANE	µg/kg	5.46 U	5.17 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	5.46 U	5.17 U
8260	ETHYL METHACRYLATE	µg/kg	5.46 U	5.17 U
8260	ETHYLBENZENE	µg/kg	5.46 U	5.17 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	5.46 U	5.17 U
8260	IODOMETHANE	µg/kg	5.46 U	5.17 U
8260	M,P-XYLENE	µg/kg	5.46 U	5.17 U
8260	METHACRYLONITRILE	µg/kg	5.46 U	5.17 U
8260	METHYL METHACRYLATE	µg/kg	5.46 U	5.17 U
8260	METHYLENE CHLORIDE	µg/kg	54.6 U	51.7 U
8260	O-XYLENE	µg/kg	5.46 U	5.17 U
8260	PENTACHLOROETHANE	µg/kg	5.46 U	5.17 U
8260	PROPIONITRILE	µg/kg	54.6 U	51.7 U
8260	STYRENE	µg/kg	5.46 U	5.17 U
8260	TETRACHLOROETHENE	µg/kg	5.46 U	5.17 U
8260	TOLUENE	µg/kg	5.46 U	5.17 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	5.46 U	5.17 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	5.46 U	5.17 U

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction
		Location ID	PSTC-DewatPump-SA6-1	PSTC-Haul Road-SA6-1
		Field Sample ID	PSTC-DewateringPumps-SA6-1	PSTC-Haul Road-SA6-1-070912
		Sampling Date	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	5.46 U	5.17 U
8260	TRICHLOROETHENE	µg/kg	5.46 U	5.17 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	5.46 U	5.17 U
8260	VINYL ACETATE	µg/kg	5.46 U	5.17 U
8260	VINYL CHLORIDE	µg/kg	2.19 U	2.07 U
8260	XYLENE (TOTAL)	µg/kg	5.46 U	5.17 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	3650 U	3510 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	812 U	781 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	812 U	781 U
8270	1,3,5-TRINITROBENZENE	µg/kg	5470 U	5260 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	812 U	781 U
8270	1,3-DINITROBENZENE	µg/kg	812 U	781 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	812 U	781 U
8270	1,4-NAPHTHOQUINONE	µg/kg	3650 U	3510 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	5470 U	5260 U
8270	1-NAPHTHYLAMINE	µg/kg	5470 U	5260 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	1620 U	1560 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	1620 U	1560 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	1620 U	1560 U
8270	2,4-DICHLOROPHENOL	µg/kg	1620 U	1560 U
8270	2,4-DIMETHYLPHENOL	µg/kg	1620 U	1560 U
8270	2,4-DINITROPHENOL	µg/kg	3250 UJ	3120 UJ
8270	2,4-DINITROTOLUENE	µg/kg	812 U	781 U
8270	2,6-DICHLOROPHENOL	µg/kg	1620 U	1560 U
8270	2,6-DINITROTOLUENE	µg/kg	812 U	781 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	3650 U	3510 U
8270	2-CHLORONAPHTHALENE	µg/kg	812 U	781 U
8270	2-CHLOROPHENOL	µg/kg	1620 U	1560 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	812 U	781 U
8270	2-METHYLPHENOL	µg/kg	1620 U	1560 U
8270	2-NAPHTHYLAMINE	µg/kg	5470 U	5260 U
8270	2-NITROANILINE	µg/kg	1620 U	1560 U
8270	2-NITROPHENOL	µg/kg	1620 U	1560 U
8270	2-PICOLINE	µg/kg	3650 U	3510 U
8270	3&4-METHYLPHENOL	µg/kg	1620 U	1560 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	8120 UJ	7810 UJ
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	3650 U	3510 U
8270	3-METHYLCHOLANTHRENE	µg/kg	5470 U	5260 U
8270	3-NITROANILINE	µg/kg	1620 U	1560 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	1620 U	1560 U
8270	4-AMINOBIPHENYL	µg/kg	3650 U	3510 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	812 U	781 U



Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction
		Location ID	PSTC-DewatPump-SA6-1	PSTC-Haul Road-SA6-1
		Field Sample ID	PSTC-DewateringPumps-SA6-1	PSTC-Haul Road-SA6-1-070912
		Sampling Date	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	1620 U	1560 U
8270	4-CHLOROANILINE	µg/kg	812 U	781 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	812 U	781 U
8270	4-NITROANILINE	µg/kg	1620 U	1560 U
8270	4-NITROPHENOL, SVOC	µg/kg	1620 U	1560 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	3650 U	3510 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA
8270	ACENAPHTHENE	µg/kg	812 U	781 U
8270	ACENAPHTHYLENE	µg/kg	812 U	781 U
8270	ACETOPHENONE	µg/kg	812 U	781 U
8270	ANILINE	µg/kg	1620 U	1560 U
8270	ANTHRACENE	µg/kg	812 U	781 U
8270	BENZIDINE	µg/kg	8120 U	7810 U
8270	BENZO(A)ANTHRACENE	µg/kg	812 U	781 U
8270	BENZO[A]PYRENE	µg/kg	812 U	781 U
8270	BENZO[B]FLUORANTHENE	µg/kg	820	870
8270	BENZO[G,H,I]PERYLENE	µg/kg	812 U	781 U
8270	BENZO[K]FLUORANTHENE	µg/kg	812 U	781 U
8270	BENZYL ALCOHOL	µg/kg	1620 U	1560 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	812 U	781 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	812 U	781 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	812 U	781 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	812 U	781 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	812 U	781 U
8270	CARBAZOLE	µg/kg	812 U	781 U
8270	CHLOROBENZILATE	µg/kg	3650 U	3510 U
8270	CHRYSENE	µg/kg	812 U	781 U
8270	DIALATE	µg/kg	5470 U	5260 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	812 U	781 U
8270	DIBENZOFURAN	µg/kg	812 U	781 U
8270	DIETHYL PHTHALATE	µg/kg	812 U	781 U
8270	DIMETHOATE	µg/kg	3650 U	3510 U
8270	DIMETHYL PHTHALATE	µg/kg	812 U	781 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	3650 U	3510 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	812 U	781 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	812 UJ	781 UJ
8270	DIPHENYLAMINE	µg/kg	3650 U	3510 U
8270	DISULFOTON	µg/kg	3650 U	3510 U
8270	ETHYL METHANESULFONATE	µg/kg	3650 U	3510 U
8270	FAMPHUR	µg/kg	1820 U	1750 U
8270	FLUORANTHENE	µg/kg	812 U	1690
8270	FLUORENE	µg/kg	812 U	781 U

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction
		Location ID	PSTC-DewatPump-SA6-1	PSTC-Haul Road-SA6-1
		Field Sample ID	PSTC-DewateringPumps-SA6-1	PSTC-Haul Road-SA6-1-070912
		Sampling Date	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	HEXACHLOROBENZENE, SVOC	µg/kg	812 U	781 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	812 U	781 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	3250 U	3120 U
8270	HEXACHLOROETHANE	µg/kg	812 U	781 U
8270	HEXACHLOROPROPENE	µg/kg	5470 U	5260 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	812 U	781 U
8270	ISODRIN	µg/kg	5470 U	5260 U
8270	ISOPHORONE	µg/kg	812 U	781 U
8270	ISOSAFROLE	µg/kg	3650 U	3510 U
8270	KEPONE, SVOC	µg/kg	41400 U	39800 U
8270	METHAPYRILENE	µg/kg	3650 U	3510 U
8270	METHYL METHANESULFONATE	µg/kg	3650 U	3510 U
8270	METHYL PARATHION	µg/kg	3650 U	3510 U
8270	NAPHTHALENE, SVOC	µg/kg	812 U	781 U
8270	NITROBENZENE	µg/kg	812 U	781 U
8270	N-NITROSODIETHYLAMINE	µg/kg	5470 U	5260 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	812 U	781 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	3650 U	3510 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	812 U	781 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	812 U	781 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	3650 U	3510 U
8270	N-NITROSOMORPHOLINE	µg/kg	3650 U	3510 U
8270	N-NITROSOPIPERIDINE	µg/kg	3650 U	3510 U
8270	N-NITROSOPYRROLIDINE	µg/kg	3650 U	3510 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	3650 U	3510 U
8270	O-TOLUIDINE	µg/kg	3650 U	3510 U
8270	PARATHION	µg/kg	3650 U	3510 U
8270	PENTACHLOROBENZENE	µg/kg	3650 U	3510 U
8270	PENTACHLORONITROBENZENE	µg/kg	3650 U	3510 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	1620 U	1560 U
8270	PHENACETIN	µg/kg	3650 U	3510 U
8270	PHENANTHRENE	µg/kg	812 U	781 U
8270	PHENOL	µg/kg	1620 U	1560 U
8270	PHORATE	µg/kg	3650 U	3510 U
8270	PRONAMIDE	µg/kg	3650 U	3510 U
8270	PYRENE	µg/kg	812 U	801
8270	PYRIDINE	µg/kg	812 U	781 U
8270	SAFROLE	µg/kg	3650 U	3510 U
8270	SULFOTEPP	µg/kg	3650 U	3510 U
8270	THIONAZIN	µg/kg	3650 U	3510 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Haul Road-SA6-2	PSTC-Haul Road-SA6-3	PSTC-Haul Road-SA6-4
		Field Sample ID	PSTC-Haul Road-SA6-2-070912	PSTC-Haul Road-SA6-3-070912	PSTC-Haul Road-SA6-4-070912
		Sampling Date	7/9/2012	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
6010B	ALUMINUM	mg/kg	3940	3600	3550
6020	ANTIMONY	mg/kg	0.192 U	0.241 U	0.223 U
6020	ARSENIC	mg/kg	8.44	5.78	12.2
6010B	BARIUM	mg/kg	46.3	62	45.1
6010B	BERYLLIUM	mg/kg	0.824 U	0.994 U	0.945 U
6010B	CADMIUM	mg/kg	4.93 U	5.95 U	5.66 U
6010B	CALCIUM	mg/kg	34200	48900	38200
6010B	CHROMIUM	mg/kg	21	11.9	7.67
6010B	COBALT	mg/kg	3.29 U	3.96 U	3.77 U
6020	COPPER	mg/kg	15.3	15.3	9.76
6010B	IRON	mg/kg	15700	12500	9440
6010B	LEAD	mg/kg	41.7	54.6	21.7
6010B	MAGNESIUM	mg/kg	8090	13200	5740
6020	MANGANESE	mg/kg	380	306	315
7471	MERCURY	mg/kg	0.296	0.281	0.0219
6010B	NICKEL	mg/kg	11.2	9.02	7.46
6010B	POTASSIUM	mg/kg	521	699	566
6010B	SELENIUM	mg/kg	16.4 U	19.8 U	18.8 U
6020	SILVER	mg/kg	0.0962 U	0.121 U	0.111 U
6010B	SODIUM	mg/kg	164 U	198 U	188 U
6020	THALLIUM	mg/kg	0.192 U	0.241 U	0.223 U
6010B	VANADIUM	mg/kg	13.1	12.3	9.56
6010B	ZINC	mg/kg	84.7	88.6	56.5
8082	AROCLOR 1016	mg/kg	0.0993 UJ	0.12 UJ	0.114 UJ
8082	AROCLOR 1221	mg/kg	0.0993 UJ	0.12 UJ	0.114 UJ
8082	AROCLOR 1232	mg/kg	0.0993 UJ	0.12 UJ	0.114 UJ
8082	AROCLOR 1242	mg/kg	0.0993 UJ	0.12 UJ	0.114 UJ
8082	AROCLOR 1248	mg/kg	0.0993 UJ	0.12 UJ	0.114 UJ
8082	AROCLOR 1254	mg/kg	0.0993 UJ	0.12 UJ	0.114 UJ
8082	AROCLOR 1260	mg/kg	0.313 J	2.1 J	0.114 UJ
8082	Total PCBs (Sum of Detections)	mg/kg	0.313	2.1	0 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,1-DICHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,1-DICHLOROETHENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	4.82 U	5.88 U	5.52 UJ
8260	1,2-DICHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	4.82 U	5.88 U	5.52 U

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Haul Road-SA6-2	PSTC-Haul Road-SA6-3	PSTC-Haul Road-SA6-4
		Field Sample ID	PSTC-Haul Road-SA6-2-070912	PSTC-Haul Road-SA6-3-070912	PSTC-Haul Road-SA6-4-070912
		Sampling Date	7/9/2012	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8260	1,2-DICHLOROPROPANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	4.82 U	5.88 U	5.52 UJ
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	4.82 U	5.88 U	5.52 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	4.82 U	5.88 U	5.52 UJ
8260	2-BUTANONE (MEK)	µg/kg	48.2 UJ	58.8 UJ	55.2 UJ
8260	2-HEXANONE	µg/kg	48.2 U	58.8 U	55.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	48.2 U	58.8 U	55.2 U
8260	ACETONE	µg/kg	96.3 U	118 U	110 U
8260	ACROLEIN	µg/kg	48.2 U	58.8 U	55.2 U
8260	ACRYLONITRILE	µg/kg	48.2 U	58.8 U	55.2 U
8260	ALLYL CHLORIDE	µg/kg	4.82 U	5.88 U	5.52 U
8260	BENZENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	BROMODICHLOROMETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	BROMOFORM	µg/kg	4.82 U	5.88 U	5.52 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	9.63 U	11.8 U	11 U
8260	CARBON DISULFIDE	µg/kg	4.82 U	5.88 U	5.52 U
8260	CARBON TETRACHLORIDE	µg/kg	4.82 U	5.88 U	5.52 U
8260	CHLOROBENZENE	µg/kg	4.82 U	5.88 U	5.52 UJ
8260	CHLORODIBROMOMETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	CHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	CHLOROFORM	µg/kg	4.82 U	5.88 U	5.52 U
8260	CHLOROMETHANE	µg/kg	9.63 U	11.8 U	11 U
8260	CHLOROPRENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	DIBROMOMETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	ETHYL METHACRYLATE	µg/kg	4.82 U	5.88 U	5.52 U
8260	ETHYLBENZENE	µg/kg	4.82 U	5.88 U	5.52 UJ
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	4.82 U	5.88 U	5.52 U
8260	IODOMETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	M,P-XYLENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	METHACRYLONITRILE	µg/kg	4.82 U	5.88 U	5.52 U
8260	METHYL METHACRYLATE	µg/kg	4.82 U	5.88 U	5.52 U
8260	METHYLENE CHLORIDE	µg/kg	48.2 U	58.8 U	55.2 U
8260	O-XYLENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	PENTACHLOROETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	PROPIONITRILE	µg/kg	48.2 U	58.8 U	55.2 U
8260	STYRENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	TETRACHLOROETHENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	TOLUENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	4.82 U	5.88 U	5.52 U

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Haul Road-SA6-2	PSTC-Haul Road-SA6-3	PSTC-Haul Road-SA6-4
		Field Sample ID	PSTC-Haul Road-SA6-2-070912	PSTC-Haul Road-SA6-3-070912	PSTC-Haul Road-SA6-4-070912
		Sampling Date	7/9/2012	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	TRICHLOROETHENE	µg/kg	4.82 U	5.88 U	5.52 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	4.82 U	5.88 U	5.52 U
8260	VINYL ACETATE	µg/kg	4.82 U	5.88 U	5.52 U
8260	VINYL CHLORIDE	µg/kg	1.93 U	2.35 U	2.21 U
8260	XYLENE (TOTAL)	µg/kg	4.82 U	5.88 U	5.52 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	3270 U	3980 U	3780 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	728 U	886 U	842 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	728 U	886 U	842 U
8270	1,3,5-TRINITROBENZENE	µg/kg	4900 U	5970 U	5670 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	728 U	886 U	842 U
8270	1,3-DINITROBENZENE	µg/kg	728 U	886 U	842 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	728 U	886 U	842 U
8270	1,4-NAPHTHOQUINONE	µg/kg	3270 U	3980 U	3780 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	4900 U	5970 U	5670 U
8270	1-NAPHTHYLAMINE	µg/kg	4900 U	5970 U	5670 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2,4-DICHLOROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2,4-DIMETHYLPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2,4-DINITROPHENOL	µg/kg	2910 UJ	3550 UJ	3370 UJ
8270	2,4-DINITROTOLUENE	µg/kg	728 U	886 U	842 U
8270	2,6-DICHLOROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2,6-DINITROTOLUENE	µg/kg	728 U	886 U	842 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	3270 U	3980 U	3780 U
8270	2-CHLORONAPHTHALENE	µg/kg	728 U	886 U	842 U
8270	2-CHLOROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	728 U	886 U	842 U
8270	2-METHYLPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2-NAPHTHYLAMINE	µg/kg	4900 U	5970 U	5670 U
8270	2-NITROANILINE	µg/kg	1460 U	1770 U	1680 U
8270	2-NITROPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	2-PICOLINE	µg/kg	3270 U	3980 U	3780 U
8270	3&4-METHYLPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	7280 UJ	8860 UJ	8420 UJ
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	3270 U	3980 U	3780 U
8270	3-METHYLCHOLANTHRENE	µg/kg	4900 U	5970 U	5670 U
8270	3-NITROANILINE	µg/kg	1460 U	1770 U	1680 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	4-AMINOBIPHENYL	µg/kg	3270 U	3980 U	3780 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	728 U	886 U	842 U

Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Haul Road-SA6-2	PSTC-Haul Road-SA6-3	PSTC-Haul Road-SA6-4
		Field Sample ID	PSTC-Haul Road-SA6-2-070912	PSTC-Haul Road-SA6-3-070912	PSTC-Haul Road-SA6-4-070912
		Sampling Date	7/9/2012	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	1460 U	1770 U	1680 U
8270	4-CHLOROANILINE	µg/kg	728 U	886 U	842 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	728 U	886 U	842 U
8270	4-NITROANILINE	µg/kg	1460 U	1770 U	1680 U
8270	4-NITROPHENOL, SVOC	µg/kg	1460 U	1770 U	1680 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	3270 U	3980 U	3780 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	3980 U	3780 U
8270	ACENAPHTHENE	µg/kg	728 U	886 U	842 U
8270	ACENAPHTHYLENE	µg/kg	728 U	886 U	842 U
8270	ACETOPHENONE	µg/kg	728 U	886 U	842 U
8270	ANILINE	µg/kg	1460 U	1770 U	1680 U
8270	ANTHRACENE	µg/kg	728 U	886 U	842 U
8270	BENZIDINE	µg/kg	7280 U	8860 U	8420 U
8270	BENZO(A)ANTHRACENE	µg/kg	728 U	886 U	842 U
8270	BENZO[A]PYRENE	µg/kg	728 U	886 U	842 U
8270	BENZO[B]FLUORANTHENE	µg/kg	728 U	886 U	842 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	728 U	886 U	842 U
8270	BENZO[K]FLUORANTHENE	µg/kg	728 U	886 U	842 U
8270	BENZYL ALCOHOL	µg/kg	1460 U	1770 U	1680 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	728 U	886 U	842 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	728 U	886 U	842 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	728 U	886 U	842 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	728 U	886 U	842 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	728 U	886 U	842 U
8270	CARBAZOLE	µg/kg	728 U	886 U	842 U
8270	CHLOROBENZILATE	µg/kg	3270 U	3980 U	3780 U
8270	CHRYSENE	µg/kg	728 U	886 U	842 U
8270	DIALATE	µg/kg	4900 U	5970 U	5670 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	728 U	886 U	842 U
8270	DIBENZOFURAN	µg/kg	728 U	886 U	842 U
8270	DIETHYL PHTHALATE	µg/kg	728 U	886 U	842 U
8270	DIMETHOATE	µg/kg	3270 U	3980 U	3780 U
8270	DIMETHYL PHTHALATE	µg/kg	728 U	886 U	842 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	3270 U	3980 U	3780 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	728 U	886 U	842 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	728 UJ	886 UJ	842 UJ
8270	DIPHENYLAMINE	µg/kg	3270 U	3980 U	3780 U
8270	DISULFOTON	µg/kg	3270 U	3980 U	3780 U
8270	ETHYL METHANESULFONATE	µg/kg	3270 U	3980 U	3780 U
8270	FAMPHUR	µg/kg	1630 U	1990 U	1890 U
8270	FLUORANTHENE	µg/kg	728 U	886 U	842 U
8270	FLUORENE	µg/kg	728 U	886 U	842 U



Table B-4  
SA6 Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 6	Slope Area 6	Slope Area 6
		Location Type	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Haul Road-SA6-2	PSTC-Haul Road-SA6-3	PSTC-Haul Road-SA6-4
		Field Sample ID	PSTC-Haul Road-SA6-2-070912	PSTC-Haul Road-SA6-3-070912	PSTC-Haul Road-SA6-4-070912
		Sampling Date	7/9/2012	7/9/2012	7/9/2012
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8270	HEXACHLOROBENZENE, SVOC	µg/kg	728 U	886 U	842 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	728 U	886 U	842 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	2910 U	3550 U	3370 U
8270	HEXACHLOROETHANE	µg/kg	728 U	886 U	842 U
8270	HEXACHLOROPROPENE	µg/kg	4900 U	5970 U	5670 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	728 U	886 U	842 U
8270	ISODRIN	µg/kg	4900 U	5970 U	5670 U
8270	ISOPHORONE	µg/kg	728 U	886 U	842 U
8270	ISOSAFROLE	µg/kg	3270 U	3980 U	3780 U
8270	KEPONE, SVOC	µg/kg	37200 U	45200 U	43000 U
8270	METHAPYRILENE	µg/kg	3270 U	3980 U	3780 U
8270	METHYL METHANESULFONATE	µg/kg	3270 U	3980 U	3780 U
8270	METHYL PARATHION	µg/kg	3270 U	3980 U	3780 U
8270	NAPHTHALENE, SVOC	µg/kg	728 U	886 U	842 U
8270	NITROBENZENE	µg/kg	728 U	886 U	842 U
8270	N-NITROSODIETHYLAMINE	µg/kg	4900 U	5970 U	5670 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	728 U	886 U	842 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	3270 U	3980 U	3780 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	728 U	886 U	842 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	728 U	886 U	842 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	3270 U	3980 U	3780 U
8270	N-NITROSOMORPHOLINE	µg/kg	3270 U	3980 U	3780 U
8270	N-NITROSOPIPERIDINE	µg/kg	3270 U	3980 U	3780 U
8270	N-NITROSOPYRROLIDINE	µg/kg	3270 U	3980 U	3780 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	3270 U	3980 U	3780 U
8270	O-TOLUIDINE	µg/kg	3270 U	3980 U	3780 U
8270	PARATHION	µg/kg	3270 U	3980 U	3780 U
8270	PENTACHLOROBENZENE	µg/kg	3270 U	3980 U	3780 U
8270	PENTACHLORONITROBENZENE	µg/kg	3270 U	3980 U	3780 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	1460 U	1770 U	1680 U
8270	PHENACETIN	µg/kg	3270 U	3980 U	3780 U
8270	PHENANTHRENE	µg/kg	728 U	886 U	842 U
8270	PHENOL	µg/kg	1460 U	1770 U	1680 U
8270	PHORATE	µg/kg	3270 U	3980 U	3780 U
8270	PRONAMIDE	µg/kg	3270 U	3980 U	3780 U
8270	PYRENE	µg/kg	728 U	886 U	842 U
8270	PYRIDINE	µg/kg	728 U	886 U	842 U
8270	SAFROLE	µg/kg	3270 U	3980 U	3780 U
8270	SULFOTEPP	µg/kg	3270 U	3980 U	3780 U
8270	THIONAZIN	µg/kg	3270 U	3980 U	3780 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification

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**ATTACHMENT B-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 1

**Date:** 4/12/12

**Direction:** North

**Photographer:** Michael Browning

**Subject:** Laying out geotextile fabric near the East Stockbridge Avenue entrance



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 2

**Date:** 4/12/12

**Direction:** Northeast

**Photographer:** Michael Browning

**Subject:** East Stockbridge Avenue entrance after placement of geotextile fabric and stone



**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 3

**Direction:** North

**Subject:** Silt fence installed along the west bank

**Date:** 4/23/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 4

**Direction:** Southeast

**Subject:** Placing geotextile fabric on the access road near the northern end

**Date:** 4/24/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 5

**Direction:** Southeast

**Subject:** Swamp mats placed on top of the gravel platform on the west bank

**Date:** 4/27/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 6

**Direction:** Southeast

**Subject:** Unloading discharge system pipes

**Date:** 5/1/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 7  
**Direction:** Northwest  
**Subject:** Cleaning access road

**Date:** 5/3/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 8  
**Direction:** Southwest  
**Subject:** Installation of a sediment curtain prior to the installation of the concrete catch basin

**Date:** 5/4/12  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 9

**Direction:** Northeast

**Subject:** Unloading the concrete catch basin, used as a sump for the by-pass pump intakes

**Date:** 5/4/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 10

**Direction:** Southwest

**Subject:** Lowering the concrete basin into Portage Creek at the southern end

**Date:** 5/4/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 11

**Direction:** South

**Subject:** Preparing to unload additional equipment for the creek water bypass system

**Date:** 5/7/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 12

**Direction:** Northwest

**Subject:** Pipe fusion machine

**Date:** 5/7/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 13

**Direction:** NA

**Subject:** Two sections of diversion pipes about to be fused together

**Date:** 5/7/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 14

**Direction:** North

**Subject:** Lifting a bypass system pump at the southern end

**Date:** 5/7/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 15

**Direction:** Northeast

**Subject:** Placing a pipe in position in order to be fused

**Date:** 5/8/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 16

**Direction:** Northwest

**Subject:** By-pass pump intake tube placed into concrete basin sump

**Date:** 5/9/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 17

**Direction:** Southeast

**Subject:** Section of discharge pipe installed across Portage Creek

**Date:** 5/10/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 18

**Direction:** West

**Subject:** Subcontractor using a vibratory hammer to drive a section of sheet piling

**Date:** 5/11/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 19

**Direction:** Southeast

**Subject:** Ongoing construction of the cofferdam in Grid 1

**Date:** 5/14/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 20

**Direction:** West

**Subject:** Turbidity meter placed on the west bank of SA5-D for activities in SA6

**Date:** 5/21/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 21  
**Direction:** South  
**Subject:** Excavation of sediment from Grid 2

**Date:** 5/21/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 22  
**Direction:** South  
**Subject:** Dumping sediment at the John Street staging pad

**Date:** 5/21/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 23

**Direction:** Southwest

**Subject:** Bypass pumps diverting water from Portage Creek

**Date:** 5/21/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 24

**Direction:** Northwest

**Subject:** Rinsing the tires of a dump truck

**Date:** 5/23/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 25

**Date:** 5/24/12

**Direction:** Northwest

**Photographer:** Michael Browning

**Subject:** Loading sediment into a dump truck for hauling to the landfill



**Site:** Portage Creek Area Site –SA6

**Photograph No.:** 26

**Date:** 5/25/12

**Direction:** Northwest

**Photographer:** Michael Browning

**Subject:** Sections of geotextile fabric extended across Portage Creek as part of the restoration activities



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 27

**Direction:** Northeast

**Subject:** Operator placing river rock in Portage Creek as part of the restoration activities

**Date:** 5/28/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 28

**Direction:** Northwest

**Subject:** Restoration activities

**Date:** 5/29/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 29

**Direction:** Southeast

**Subject:** Groundwater sipper wells and manifold installed along the east and west banks

**Date:** 5/31/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 30

**Direction:** West

**Subject:** Subcontractor operator mixing corn cob and sediment in the mixing roll-off box

**Date:** 6/4/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 31

**Direction:** North

**Subject:** Excavation activities in Grid 2

**Date:** 6/6/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 32

**Direction:** Southwest

**Subject:** Excavation of sediment from Grid 2

**Date:** 6/8/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site –SA6  
**Photograph No.:** 33  
**Direction:** North  
**Subject:** Restored sections of Grid 2

**Date:** 6/8/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 34  
**Direction:** Southeast  
**Subject:** Disassembly of the surface water bypass system

**Date:** 6/28/12  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 35

**Direction:** South

**Subject:** Scraping gravel and rock from the access road

**Date:** 6/29/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 36

**Direction:** Southeast

**Subject:** Placing rock along the eastern bank

**Date:** 7/17/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 37

**Date:** 8/7/12

**Direction:** South

**Photographer:** Michael Browning

**Subject:** Restored backyard of the property located adjacent to Grid 14



**Site:** Portage Creek Area Site – SA6

**Photograph No.:** 38

**Date:** 4/11/13

**Direction:** South

**Photographer:** Michael Browning

**Subject:** One year after final restoration



**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 39  
**Direction:** South  
**Subject:** One year after final restoration

**Date:** 4/11/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA6  
**Photograph No.:** 40  
**Direction:** South  
**Subject:** One year after final restoration

**Date:** 4/11/13  
**Photographer:** Michael Browning



## **APPENDIX C**

### **SLOPE AREA 5-D REPORT PORTAGE CREEK AREA SITE**

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## **LIST OF ATTACHMENTS**

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- C-A Photographic Documentation

# **1. SLOPE AREA BACKGROUND**

## **1.1 SLOPE AREA DESCRIPTION**

SA5-D is located south of downtown Kalamazoo, Michigan, and extends north from Lake Street to East Crosstown Parkway. The approximate geographic coordinates are latitude 42.28186° North and longitude -85.57856° West (**Figure C-1**). The entire footprint of the excavation area, which was divided into seventeen grids, encompasses approximately 32,750 ft<sup>2</sup>. SA5-D is surrounded by residential and City-owned properties. Portage Creek flows through SA5-D from south to north (**Figure C-2**).

## **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from two property owners, providing access to the excavation area from Lake Street to East Crosstown Parkway. The property owners granted EPA and its contractors permission to establish an access road, temporarily remove a pedestrian bridge, place a portable temporary steel bridge system across Portage Creek, conduct contaminated sediment excavation operations, and restore the properties after excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

## **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm the excavation depths within Grids 1, 2, 3, 4, 7, 12, and 14, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal assessment to document existing Site conditions
- Installation of environmental controls to minimize the impact of the excavation activities on the original Site features
- Clearing and grubbing to allow physical access to the excavation area

- Collection of pre-construction soil samples from the support areas
- Construction of two sheet pile cofferdams
- Construction of two sandbag dams immediately south of the pedestrian bridge adjacent to the Youth Development Center and south of East Crosstown Parkway
- Installation of a portable temporary steel bridge system across Portage Creek in Grid 6
- Installation and operation of a by-pass pumping system and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation and verification sediment samples obtained from excavation grids
- Removal of all environmental controls, the access road, dams, temporary bridge, and pump systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from the support area
- Development of an area-specific restoration plan in coordination with property owners(s)

After completion of the Site set-up activities (i.e., installation of environmental controls, construction of the cofferdam, construction of the sandbag dams, placement of a portable temporary steel bridge system, and installation of the by-pass and groundwater diversion systems), a subcontractor excavated TSCA and non-TSCA PCB-contaminated sediment from all 17 excavation grids, beginning in Grid 1 and continuing south to north through Grid 17. Additional information on excavation activities is provided in Section 3.

A total of twenty-six in-stream sediment core samples (including two duplicate samples) from ten different locations, twenty-seven pre-construction soil samples (including three duplicate samples), eighteen confirmation sediment samples (including two duplicate samples), six verification sediment samples, one investigative sediment sample and twenty-seven post-construction soil samples (including three duplicate samples) were collected prior to, during, and after excavation activities. Additional information is provided for these samples in Sections 2.1 and 4.1 - 4.3.



Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information is provided for these activities in Section 5.2.

## **2. PRE-REMOVAL ACTIVITIES**

This section discusses the pre-removal sampling activities, pre-removal features assessment, the SA5-D Site setup activities, and environmental controls. **Attachment C-A** provides photographic documentation of selected pre-removal activities.

### **2.1 PRE-REMOVAL SAMPLING ACTIVITIES**

ERRS and START performed pre-excavation sediment sampling on August 30, 2011. During this sampling event, one sediment core each was collected from Grids 2, 3, 4, and 12, and two sediment cores each were collected from Grids 1, 7, and 14. These cores were processed and sampled in approximately 12-inch intervals. In addition, surface soil samples were collected in low-lying areas within Upjohn Park, where historic flooding events were suspected to have led to deposition of potentially contaminated sediments that could require excavation (see Section 4.1 for details). All analytical data results for the pre-excavation sediment samples are presented in **Table C-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses to be conducted. The intent of this sampling was to confirm the vertical extent of PCB contamination in Grids 1, 2, 3, 4, 7, 12, and 14; to determine if the contaminant levels were below TSCA landfill disposal parameters; and to finalize the sediment excavation depths within each grid. The samples were shipped to TestAmerica Laboratories of Dayton, Ohio, for PCB analysis. The analytical results verified that sediment contaminant levels for PCBs in Grids 1, 2, 3, 4, 7, 12, and 14 were below TSCA disposal limits. However, during an earlier sampling event, sediments from portions of Grids 7 - 12 and 15 - 16 were determined to be above TSCA limits and were therefore excavated as TSCA sediment, while sediments from Grids 1 - 6 and 13 and 14 were excavated as non-TSCA sediment.

## **2.2 PRE-REMOVAL FEATURES ASSESSMENT**

START recorded photographic and video documentation of the pre-removal features on the eastern and western banks extending from Lake Street to East Crosstown Parkway, the Lake Street bridge, the pedestrian bridge that leads from the Youth Development Center to Upjohn Park, and Youth Development Center parking lot. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal features assessment of in-place constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment, Removal Areas SA5-Axtell, SA5-D and SA5-C” (Fleis and Vandenbrink Engineering Inc., May 2012) is available upon request. This assessment was used to determine if any corrective actions or repairs were required once excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of Access Roads**

A subcontractor cleared trees and other vegetative cover from the eastern and western banks. The entire eastern bank, extending from Lake Street to East Crosstown Parkway, was cleared to allow access to the excavation area. However, only portions of the western bank were cleared to allow placement of the portable temporary steel bridge system and the by-pass system discharge pipes. In order to maintain soil stability, all clearing and grubbing activities were completed in a manner that protected the root masses of the trees in the overall work area.

After removal of the trees and vegetative cover along the eastern bank, an access road was constructed along the entire eastern bank of the excavation area. This road was constructed of alternating sections of 1-inch by 3-inch rock underlain by geotextile fabric and wooden timber mats. A portable temporary steel bridge system consisting of two 6-ft wide, 50-ft long sections placed side by side was placed across Grid 6. Finally, a chain-link fence was installed along the entire eastern bank and northern end of the western bank in order to prevent access to the excavation area and to protect patrons of Upjohn Park and the Youth Development Center from construction activities.

### 2.3.2 Pre-Removal and Post-Removal Topographic Surveys

EPA FIELDS performed a pre-construction/excavation topographic survey of the excavation area in August 2011. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for evaluating the contaminated sediment excavation within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during excavation activities. The RTK-GPS equipment ensured that operators were excavating sediment and backfilling each grid to targeted lateral and vertical limits of each grid.

### 2.3.3 Excavation Area Isolation and Dewatering

A subcontractor installed two sheet-pile cofferdams to isolate the excavation area and to facilitate dewatering of the contaminated sediments (**Figure C-2**). The first cofferdam was located in Grid 1 approximately 45 feet north of Lake Street. The second cofferdam was located along the western side of Grid 10 at the confluence point of Axtell Creek and Portage Creek. Sandbag dams were installed south of a pedestrian bridge adjacent to the Youth Development Center and immediately south of East Crosstown Parkway in Grid 17 (**Figure C-2**). Sandbag dams were constructed instead of sheet-pile cofferdams because of the temporary need for isolation near the Youth Development Center pedestrian bridge and close proximity of Grid 17 to the East Crosstown Parkway Bridge. The sandbag dams consisted of several large, woven polyethylene, flexible “supersacks” filled with clean sand set side by side and wrapped in polypropylene membrane liners. Due to the placement of this sandbag dam, only a portion of Grid 17 could be excavated. The sheet-pile cofferdam and sandbag dam located in Grids 1 and 17, respectively, were positioned in order to compensate for the proximity of grids to the road bridges and presence of buried utilities (gas and water lines) within each grid (**Figure C-2**).

To further dry out the creek channel, another subcontractor installed a series of groundwater extraction wells along the eastern and western banks of the excavation grids. The setup consisted of 1.5-inch-diameter polyvinyl chloride (PVC) sipper wells jetted into the banks of the creek on 5-foot centers to an approximate depth of 10 feet below the creek bottom. The sipper wells were connected to a 6-inch-diameter PVC manifold pipe by flexible tubing. The manifold pipe was

connected to 6-inch-diameter vacuum pumps that discharged groundwater past the downstream isolation cofferdam. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

### **2.3.4 By-Pass Pumping**

The by-pass pumping system was established on the north side of Lake Street just west of the creek and was fenced in for security purposes (**Figure C-2**). The by-pass pumping system consisted of five 12-inch by-pass pumps and two 18-inch discharge lines. The system captured creek water immediately upstream of the cofferdam located in Grid 1 and discharged the water downstream of the sandbag dam located just south of East Vine Street, discharging onto a rock discharge pad consisting of wire gabion baskets filled with large stones. The gabion baskets dissipated the water flow velocity and thus minimized erosion of the creek channel bottom. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed. The by-pass pumps discharged just south of East Vine Street in order to divert the creek water for both the SA5-D and SA5-C excavation areas.

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize the impact of the excavation activities. Many of the environmental controls were specified in the SESC Plan. The environmental controls are summarized below:

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.
- Dust Control - A water truck applied water for dust control within the staging areas and truck entrances/exits as necessary.
- Construction Entrance/Exit - Site access was established at the following locations: (1) east of the Lake Street bridge; (2) west of the Lake Street bridge (by-pass pump staging area); and (3) east of the East Crosstown Parkway bridge. Access roads consisted of an 8-ounce geotextile fabric underlayment with a 6-inch-thick layer of 1-inch to 3-inch rock. Either existing or new curb cuts were made to facilitate access from roadways.
- Fuel Station – A 1,000-gallon temporary fuel tank with secondary containment was stationed near the by-pass pumps. Fire extinguishers and an emergency spill control kit

were placed near the fuel tank. The spill kit included drums, oil dry, adsorbent pads, and a boom to address small spills.

- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along the creek banks to stabilize sediments and to prevent erosion into the creek channel.
- Rock Discharge Pads - A rock discharge pad was installed downstream of the isolated area where the discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stones to dissipate discharge velocity and reduce erosion of the creek bed.
- Upstream Debris Screen - A wire mesh screen was placed across the creek channel along the upstream side of the Lake Street bridge. This screen, which was cleared on a daily basis by EQM workers, removed any floating debris and prevented the debris from entering and clogging or blocking the pump intake pipes.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the cofferdams installed in the slope area. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at the turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### 3. EXCAVATION/DISPOSAL ACTIVITIES

The excavation of contaminated sediments commenced in Grid 1 and continued from south to north through Grid 17. **Attachment C-A** provides photographic documentation of the excavation activities. The table below lists excavation details, including targeted excavation depths.



### SA5-D EXCAVATION DETAILS

Grid	Target Excavation Depth (inches bss)	Final Excavation Depth (inches bss)	Surface Area of Excavated Sediment (ft <sup>2</sup> )	Volume of Excavated Sediment (yd <sup>3</sup> )
1	36	54	1250	208
2	36	60	2041	378
3	36	56	1856	321
4	36	59	1942	354
5	36	59	1683	306
6	18	56	1854	321
7	30	50	1958	302
8	30	60	1916	355
9	30	60	1925	357
10	30	60	1835	340
11	42	60	2096	388
12	42	50	1865	288
13	12	60	2121	393
14	36	60	1929	357
15	54	60	1905	353
16	42	60	1982	367
17*	42	-	-	-

\* Grid 17 was not excavated due to proximity to a roadway bridge

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = Cubic yard

In order to access contaminated sediments, a long-reach excavator was positioned along the eastern bank of the excavation area. If the sediments were sufficiently dry, the long-reach excavator loaded the excavated material directly into off-road dump trucks (ORDT) that hauled the sediment directly to the John Street staging pad by utilizing the portable temporary steel bridge system installed across Grid 6 (**Figure C-2**). If the sediments were too wet for direct shipment, the excavated material was loaded into a 20-yd<sup>3</sup> mixing box, where a corn-cob-based absorbent material was mixed in by a second excavator, solidifying the sediment before loading into ORDTs.

A skid steer was used to excavate the contaminated sediment from under the portable temporary steel bridge system in Grid 6. The pedestrian bridge located adjacent to the Youth Development Center was temporarily removed in order to facilitate the excavation of the contaminated sediment in Grid 12. Grid 17 was not excavated due to proximity of deteriorating wing walls and support structures for a roadway bridge over East Crosstown Parkway.

The ORDTs emptied their loads directly onto the staging pad, which was designed to contain the contaminated sediments along with any residual water or run-off from precipitation. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils from the eastern and western banks of the excavation area and the support area along the eastern and western banks of the excavation area. Support areas were divided into 2,500ft<sup>2</sup> sampling grids for analysis of PCBs and 10,000ft<sup>2</sup> sampling areas were analyzed for TCL VOCs and SVOCs, TCL pesticides and herbicides, TCLP metals, and PCBs.

In addition, surface soil samples were collected from the low-lying areas of Upjohn Park for analysis of PCBs, where historic flooding events were suspected to have led to the deposition of potentially contaminated sediments. All analytical data results for the pre-construction soil samples and the Upjohn Park soil samples are presented in **Table C-2**. Analytical data validation reports are available upon request.

Twenty-two soil samples (including three duplicate samples) were collected from nineteen 2,500ft<sup>2</sup> grids for PCB analysis and five composite samples were collected from the 10,000ft<sup>2</sup> areas. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500ft<sup>2</sup> grid. A composite sample of four 2,500ft<sup>2</sup> grids was generated from the residual sample material obtained from the six-point composite samples, representing 10,000ft<sup>2</sup>.

### **4.2 CONFIRMATION, VERIFICATION, AND INVESTIGATIVE SEDIMENT SAMPLING**

During and after the excavation of the contaminated sediments, START and EPA collected confirmation and verification sediment samples. Based on lessons learned in previous slope areas,

beginning at SA5-D, verification sampling was initiated in grids where visual evidence of paper sludge or heavily stained soils was observed at the original target depths specified in the TM. The purpose of the verification sampling was to confirm whether or not PCB contamination still existed warranting further excavation to meet cleanup standards. All analytical data results for the confirmation and verification sediment samples are presented in **Table C-3**. Analytical data validation reports are available upon request.

Six verification samples were collected from Grids 7, 9, 12, 14, 15, and 16 at the original target depths of 30, 30, 42, 36, 42, and 42 inches below the sediment surface, respectively. Verification samples were not collected from all grids because of cost- and time-efficiency considerations. In the other grids, if evidence of paper sludge or heavily stained soils was observed at the original target depths, excavation continued beyond the target depth until the grids were visibly clean of contaminated sediment. Confirmation samples were collected from Grids 1 - 16 at final excavation depths (including two duplicate samples from Grids 2 and 12).

For the confirmation and verification sediment samples, one six-point composite sample was collected in each grid for PCB analysis. The confirmation and verification results were evaluated against the performance standard designated for stream sediments of less than or equal to 10 mg/kg of PCBs, with a performance standard goal of 1 mg/kg.

Due to the unusual appearance of a small area of sediment located in Grid 16, one investigative grab sample was collected from this area and analyzed for PCBs; TCL VOCs; TCL SVOCs; total petroleum hydrocarbons (TPH) diesel-range organics, gasoline-range organics, and extended-range organics.

#### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as the pre-construction samples using the same grid areas and sample node locations. All analytical data results for the post-construction soil samples are presented in **Table C-4**. Analytical data validation reports are available upon request.

Nineteen individual 2,500-ft<sup>2</sup> grids and five 10,000-ft<sup>2</sup> areas were sampled. The individual grab samples, which were analyzed for PCBs, were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. Samples collected from the 2,500-ft<sup>2</sup> grids were analyzed for PCBs and composited samples collected from the 10,000-ft<sup>2</sup> grids were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals, and PCBs. To ensure that the work activities did not contaminate support areas, post-construction soil sample results were compared to results to the pre-construction soil sample results.

#### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-Site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the excavation areas during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure C-3** shows the DataRAM monitoring locations.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

### **5. POST-REMOVAL ACTIVITIES**

#### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Area SA5-Axtell, SA5-D and SA5-C” (Fleis and Vandenbrink Engineering Inc., October 2012), available upon request.

## 5.2 RESTORATION

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment C-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of the excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing the Site infrastructure and equipment required to conduct the sediment excavation operations and making any necessary repairs to properties and constructed features resulting from the sediment excavation operations. (i.e., replacement of the curb cuts created on Lake Street and East Crosstown Parkway, east of Portage Creek). The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls (such as silt fences and other control measures that prevented erosion and stabilized soil) remained in place until the vegetation was re-established (see Section 5.2.2).

### 5.2.1 Bank Stabilization and Creek Channel Backfilling

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch sediment removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. Then 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs then were installed on the eastern and western banks. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48 inches) were placed every 3 feet on the water side and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.



Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from the excavation activities. All corrective actions necessary to repair any damaged features resulting from the sediment excavation operations were completed. EPA coordinated with the appropriate stakeholders to verify their acceptance of the Site repairs and conducted final Site walk-through inspections with the property owners.

### **5.2.2 Re-vegetation**

An area-specific restoration plan (available upon request) was completed in coordination with the property owners and in accordance with the overall Site Restoration Plan. Once the overall area was re-graded with fresh topsoil, the area-specific restoration plan was implemented by a subcontractor. The area-specific restoration plan consisted of applying a grass seed/fertilizer mix with straw cover to prevent erosion, along with trees, shrubs, and vegetative plugs throughout the impacted areas.

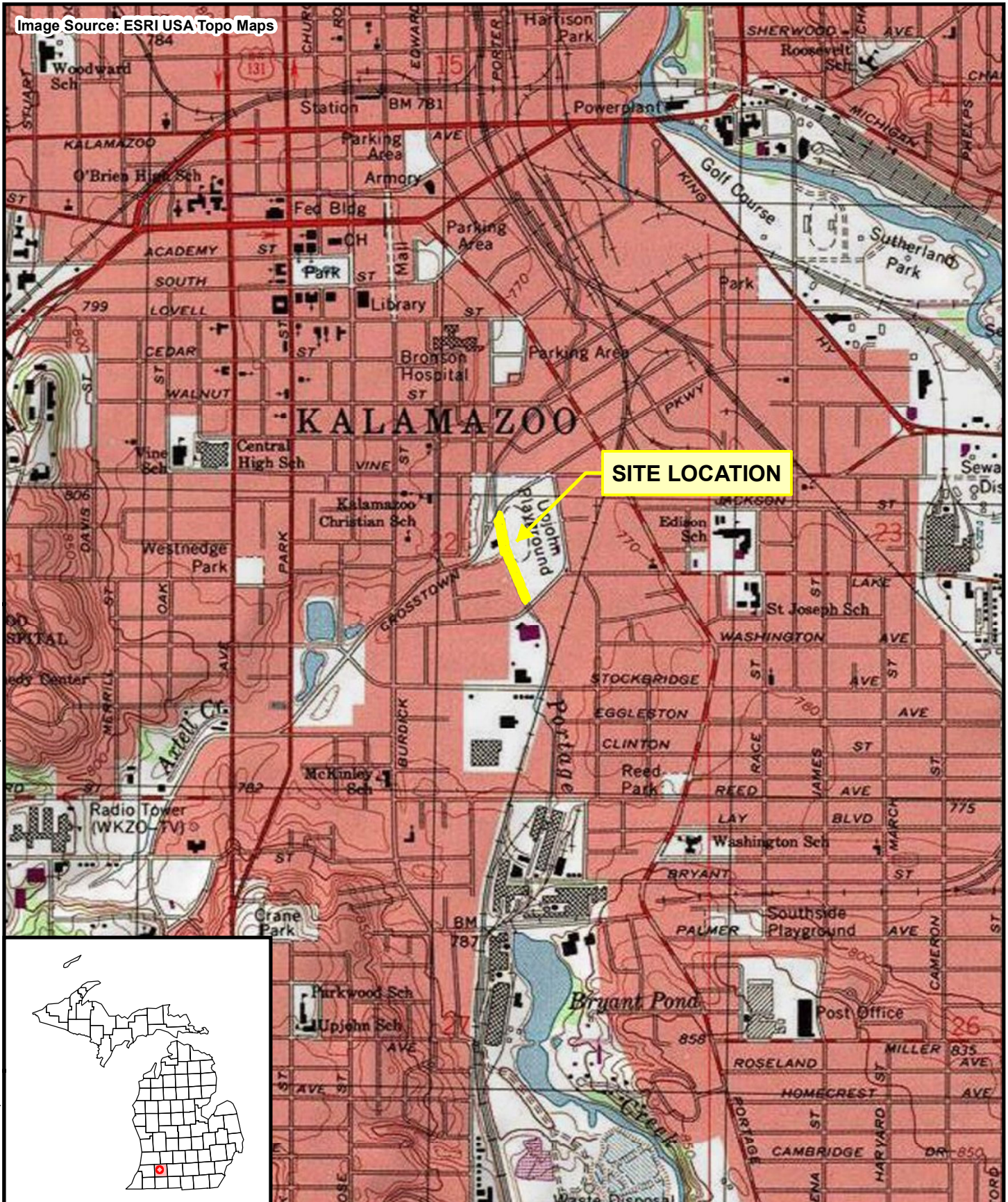
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## FIGURES

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Image Source: ESRI USA Topo Maps



#### Legend

Site Boundary

0 2,000 Feet



Prepared For:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
**WESTON SOLUTIONS, INC**

360 East Maple Road  
Suite R  
Troy, Michigan 48083

#### Figure C-1

Site Location Map  
Portage Creek Area SA5-D  
Kalamazoo, Kalamazoo County,  
Michigan



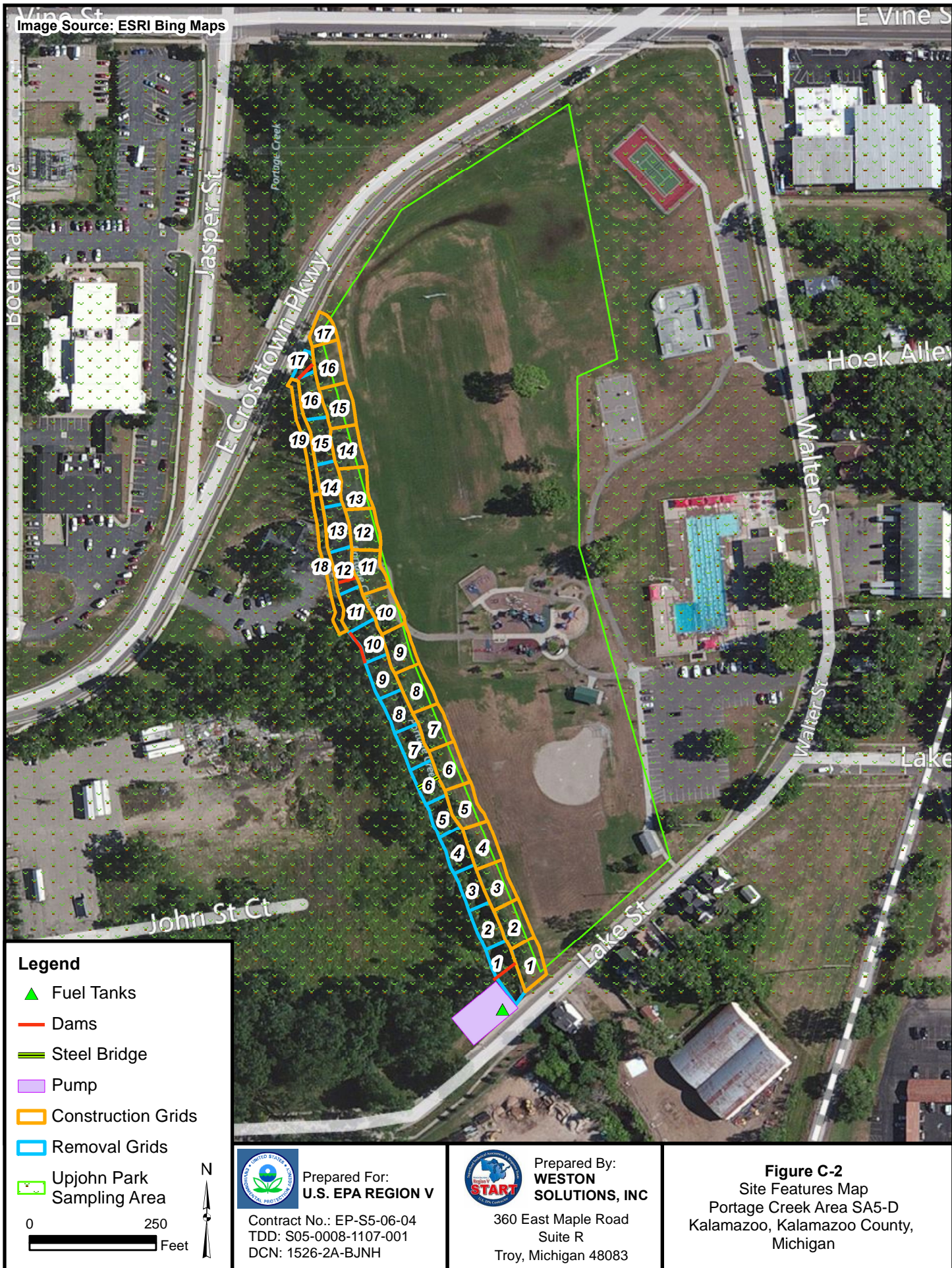




Image Source: ESRI Bing Maps



### Legend

- DataRAM
- Monitoring Locations
- Fuel Tanks
- Dams
- Pump
- Construction Grids
- Removal Grids

0 200 Feet



Prepared For:  
**U.S. EPA REGION V**

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**Figure C-3**  
DataRAM Location Monitoring Map  
Portage Creek Area SA5-D  
Kalamazoo, Kalamazoo County,  
Michigan



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## TABLES

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**Table C-1**  
**SA5-D Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5-D1-1	PRSD-SA5-D1-2	PRSD-SA5-D1-2	PRSD-SA5-D1-2	PRSD-SA5-D2-1
		Field Sample ID	PRSD-SA5-D1-1 (0-10")	PRSD-SA5-D1-2 (0-12")	PRSD-SA5-D1-2 (12-20")	PRSD-SA5-DUP2	PRSD-SA5-D2-1 (0-12")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	0-10	0-12	12-20	NA	0-12
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.591 U	0.626 U	0.547 U	0.658 U	0.621 U
8082	AROCLOR 1221	mg/kg	0.591 U	0.626 U	0.547 U	0.658 U	0.621 U
8082	AROCLOR 1232	mg/kg	0.591 U	0.626 U	0.547 U	0.658 U	0.621 U
8082	AROCLOR 1242	mg/kg	1.49	0.626 U	0.547 U	0.658 U	0.621 U
8082	AROCLOR 1248	mg/kg	0.591 U	0.626 U	0.547 U	0.658 U	0.621 U
8082	AROCLOR 1254	mg/kg	0.591 U	0.626 U	0.547 U	0.658 U	0.621 U
8082	AROCLOR 1260	mg/kg	0.591 U	0.626 U	0.547 U	0.658 U	0.621 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.49	0 U	0 U	0 U	0 U

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5-D2-1	PRSD-SA5-D2-1	PRSD-SA5-D3-1	PRSD-SA5-D3-1	PRSD-SA5-D3-1
		Field Sample ID	PRSD-SA5-D2-1 (12-24")	PRSD-SA5-D2-1 (24-32")	PRSD-SA5-D3-1 (0-12")	PRSD-SA5-D3-1 (12-24")	PRSD-SA5-D3-1 (24-28")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	12-24	24-32	0-12	12-24	24-28
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.574 U	0.692 U	0.63 U	0.603 U	0.577 U
8082	AROCLOR 1221	mg/kg	0.574 U	0.692 U	0.63 U	0.603 U	0.577 U
8082	AROCLOR 1232	mg/kg	0.574 U	0.692 U	0.63 U	0.603 U	0.577 U
8082	AROCLOR 1242	mg/kg	2.74	25.2	0.63 U	0.603 U	2.38
8082	AROCLOR 1248	mg/kg	0.574 U	0.692 U	0.63 U	0.603 U	0.577 U
8082	AROCLOR 1254	mg/kg	0.574 U	0.692 U	0.63 U	0.603 U	0.577 U
8082	AROCLOR 1260	mg/kg	0.574 U	0.692 U	0.63 U	0.603 U	0.577 U
8082	Total PCBs (Sum of Detections)	mg/kg	2.74	25.2	0 U	0 U	2.38

**Table C-1**  
**SA5-D Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5-D4-1	PRSD-SA5-D4-1	PRSD-SA5-D7-1	PRSD-SA5-D7-1	PRSD-SA5-D7-1
		Field Sample ID	PRSD-SA5-D4-1 (0-12")	PRSD-SA5-D4-1 (12-24")	PRSD-SA5-D7-1 (0-12")	PRSD-SA5-DUP#3	PRSD-SA5-D7-1 (12-18")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	0-12	12-24	0-12	NA	12-18
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.586 U	0.603 U	0.603 U	0.592 U	0.627 U
8082	AROCLOR 1221	mg/kg	0.586 U	0.603 U	0.603 U	0.592 U	0.627 U
8082	AROCLOR 1232	mg/kg	0.586 U	0.603 U	0.603 U	0.592 U	0.627 U
8082	AROCLOR 1242	mg/kg	0.586 U	3.06	0.603 U	0.592 U	1.75
8082	AROCLOR 1248	mg/kg	0.586 U	0.603 U	0.603 U	0.592 U	0.627 U
8082	AROCLOR 1254	mg/kg	0.586 U	0.603 U	0.603 U	0.592 U	0.627 U
8082	AROCLOR 1260	mg/kg	0.586 U	0.603 U	0.603 U	0.592 U	0.627 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	3.06	0 U	0 U	1.75

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5-D7-2	PRSD-SA5-D7-2	PRSD-SA5-D12-1	PRSD-SA5-D14-1	PRSD-SA5-D14-1
		Field Sample ID	PRSD-SA5-D7-2 (0-12")	PRSD-SA5-D7-2 (12-20")	PRSD-SA5-D12-1 (0-12")	PRSD-SA5-D14-1 (0-12")	PRSD-SA5-D14-1 (12-24")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	0-12	12-20	0-12	0-12	12-24
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.562 U	0.12 UJ	0.603 U	0.571 U	0.615 U
8082	AROCLOR 1221	mg/kg	0.562 U	0.12 UJ	0.603 U	0.571 U	0.615 U
8082	AROCLOR 1232	mg/kg	0.562 U	0.12 UJ	0.603 U	0.571 U	0.615 U
8082	AROCLOR 1242	mg/kg	0.562 U	0.188 J-	0.603 U	0.571 U	3.22
8082	AROCLOR 1248	mg/kg	0.562 U	0.12 UJ	0.603 U	0.571 U	0.615 U
8082	AROCLOR 1254	mg/kg	0.562 U	0.12 UJ	0.603 U	0.571 U	0.615 U
8082	AROCLOR 1260	mg/kg	0.562 U	0.12 UJ	0.603 U	0.571 U	0.615 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.188	0 U	0 U	3.22

**Table C-1**  
**SA5-D Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5-D14-1	PRSD-SA5-D14-1	PRSD-SA5-D14-2	PRSD-SA5-D14-2
		Field Sample ID	PRSD-SA5-D14-1 (24-36")	PRSD-SA5-D14-1 (36-39")	PRSD-SA5-D14-2 (0-12")	PRSD-SA5-D14-2 (12-24")
		Sampling Date	8/30/2011	8/30/2011	8/30/2011	8/30/2011
		Depth Interval (inches bss)	24-36	36-39	0-12	12-24
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.174 U	0.161 UJ	0.555 U	0.123 UJ
8082	AROCLOR 1221	mg/kg	0.174 U	0.161 UJ	0.555 U	0.123 UJ
8082	AROCLOR 1232	mg/kg	0.174 U	0.161 UJ	0.555 U	0.123 UJ
8082	AROCLOR 1242	mg/kg	0.792	0.161 UJ	0.704	0.974 J-
8082	AROCLOR 1248	mg/kg	0.174 U	0.161 UJ	0.555 U	0.123 UJ
8082	AROCLOR 1254	mg/kg	0.174 U	0.161 UJ	0.555 U	0.123 UJ
8082	AROCLOR 1260	mg/kg	0.174 U	0.161 UJ	0.555 U	0.123 UJ
8082	Total PCBs (Sum of Detections)	mg/kg	0.792	0 U	0.704	0.974

		Location Description	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5-D14-2	PRSD-SA5-D14-2
		Field Sample ID	PRSD-SA5-D14-2 (36-42")	PRSD-SA5-D14-2 (24-36")
		Sampling Date	8/30/2011	8/30/2011
		Depth Interval (inches bss)	36-42	24-36
Analytical Method	Chemical Name	Unit		
8082	AROCLOR 1016	mg/kg	0.763 U	0.613 U
8082	AROCLOR 1221	mg/kg	0.763 U	0.613 U
8082	AROCLOR 1232	mg/kg	0.763 U	0.613 U
8082	AROCLOR 1242	mg/kg	0.763 U	3.95
8082	AROCLOR 1248	mg/kg	0.763 U	0.613 U
8082	AROCLOR 1254	mg/kg	0.763 U	0.613 U
8082	AROCLOR 1260	mg/kg	0.763 U	0.613 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	3.95

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

NA = Not Applicable

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-01	PREC-SA5-02	PREC-SA5-03	PREC-SA5-04	PREC-SA5-04	PREC-SA5-05	PREC-SA5-06	PREC-SA5-07	PREC-SA5-08	PREC-SA5-09
		Field Sample ID	PREC-SA5-01-061912	PREC-SA5-02-061912	PREC-SA5-03-061912	PREC-SA5-04-061912	PREC-SA5-04-061912-DP	PREC-SA5-05-061912	PREC-SA5-06-061912	PREC-SA5-07-061912	PREC-SA5-08-061912 (MS/MSD)	PREC-SA5-09-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
SW 1010	Flashpoint	Degree Fahrenheit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A TCLP	2,4,5-TP (Silvex), TCLP	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 6010B-TCLP	ARSENIC, TCLP	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 6010B-TCLP	CADMIUM, TCLP	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-01	PREC-SA5-02	PREC-SA5-03	PREC-SA5-04	PREC-SA5-04	PREC-SA5-05	PREC-SA5-06	PREC-SA5-07	PREC-SA5-08	PREC-SA5-09
		Field Sample ID	PREC-SA5-01-061912	PREC-SA5-02-061912	PREC-SA5-03-061912	PREC-SA5-04-061912	PREC-SA5-04-061912-DP	PREC-SA5-05-061912	PREC-SA5-06-061912	PREC-SA5-07-061912	PREC-SA5-08-061912 (MS/MSD)	PREC-SA5-09-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.102 U	0.112 U	0.107 U	0.101 U	0.102 UJ	0.109 U	0.101 U	0.109 UJ	0.11 U	0.123 U
8082	AROCLOR 1221	mg/kg	0.102 U	0.112 U	0.107 U	0.101 U	0.102 UJ	0.109 U	0.101 U	0.109 UJ	0.11 U	0.123 U
8082	AROCLOR 1232	mg/kg	0.102 U	0.112 U	0.107 U	0.101 U	0.102 UJ	0.109 U	0.101 U	0.109 UJ	0.11 U	0.123 U
8082	AROCLOR 1242	mg/kg	0.102 U	0.112 U	0.107 U	0.101 U	0.102 UJ	0.109 U	0.101 U	0.109 UJ	0.11 U	0.123 U
8082	AROCLOR 1248	mg/kg	0.102 U	0.112 U	0.107 U	0.101 U	0.102 UJ	0.109 U	0.101 U	0.109 UJ	0.11 U	0.123 U
8082	AROCLOR 1254	mg/kg	0.102 U	0.112 U	0.141	0.101 U	0.102 U	0.109 U	0.101 U	0.109 U	0.299	0.123 U
8082	AROCLOR 1260	mg/kg	0.102 U	0.112 U	0.107 U	0.101 U	0.102 UJ	0.109 U	0.101 U	0.109 UJ	0.11 U	0.123 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0.141	0 U	0 U	0 U	0 U	0 U	0.299	0 U
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-01	PREC-SA5-02	PREC-SA5-03	PREC-SA5-04	PREC-SA5-04	PREC-SA5-05	PREC-SA5-06	PREC-SA5-07	PREC-SA5-08	PREC-SA5-09
		Field Sample ID	PREC-SA5-01-061912	PREC-SA5-02-061912	PREC-SA5-03-061912	PREC-SA5-04-061912	PREC-SA5-04-061912-DP	PREC-SA5-05-061912	PREC-SA5-06-061912	PREC-SA5-07-061912	PREC-SA5-08-061912 (MS/MSD)	PREC-SA5-09-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-01	PREC-SA5-02	PREC-SA5-03	PREC-SA5-04	PREC-SA5-04	PREC-SA5-05	PREC-SA5-06	PREC-SA5-07	PREC-SA5-08	PREC-SA5-09
		Field Sample ID	PREC-SA5-01-061912	PREC-SA5-02-061912	PREC-SA5-03-061912	PREC-SA5-04-061912	PREC-SA5-04-061912-DP	PREC-SA5-05-061912	PREC-SA5-06-061912	PREC-SA5-07-061912	PREC-SA5-08-061912 (MS/MSD)	PREC-SA5-09-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-01	PREC-SA5-02	PREC-SA5-03	PREC-SA5-04	PREC-SA5-04	PREC-SA5-05	PREC-SA5-06	PREC-SA5-07	PREC-SA5-08	PREC-SA5-09
		Field Sample ID	PREC-SA5-01-061912	PREC-SA5-02-061912	PREC-SA5-03-061912	PREC-SA5-04-061912	PREC-SA5-04-061912-DP	PREC-SA5-05-061912	PREC-SA5-06-061912	PREC-SA5-07-061912	PREC-SA5-08-061912 (MS/MSD)	PREC-SA5-09-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-01	PREC-SA5-02	PREC-SA5-03	PREC-SA5-04	PREC-SA5-04	PREC-SA5-05	PREC-SA5-06	PREC-SA5-07	PREC-SA5-08	PREC-SA5-09
		Field Sample ID	PREC-SA5-01-061912	PREC-SA5-02-061912	PREC-SA5-03-061912	PREC-SA5-04-061912	PREC-SA5-04-061912-DP	PREC-SA5-05-061912	PREC-SA5-06-061912	PREC-SA5-07-061912	PREC-SA5-08-061912 (MS/MSD)	PREC-SA5-09-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O <sub>3</sub> O <sub>2</sub> -TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-10	PREC-SA5-11	PREC-SA5-12	PREC-SA5-13	PREC-SA5-14	PREC-SA5-14	PREC-SA5-15	PREC-SA5-16	PREC-SA5-16	PREC-SA5-17
		Field Sample ID	PREC-SA5-10-061912	PREC-SA5-11-062012	PREC-SA5-12-062012	PREC-SA5-13-062012	PREC-SA5-14-062012	PREC-SA5-14-062012-DP	PREC-SA5-15-062012	PREC-SA5-16-062012	PREC-SA5-16-062012-DP	PREC-SA5-17-062012
		Sampling Date	6/19/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
SW 1010	Flashpoint	Degree Fahrenheit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A TCLP	2,4,5-TP (Silvex), TCLP	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 6010B-TCLP	ARSENIC, TCLP	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 6010B-TCLP	CADMIUM, TCLP	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ALUMINIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-10	PREC-SA5-11	PREC-SA5-12	PREC-SA5-13	PREC-SA5-14	PREC-SA5-14	PREC-SA5-14	PREC-SA5-15	PREC-SA5-16	PREC-SA5-17
		Field Sample ID	PREC-SA5-10-061912	PREC-SA5-11-062012	PREC-SA5-12-062012	PREC-SA5-13-062012	PREC-SA5-14-062012	PREC-SA5-14-062012-DP	PREC-SA5-15-062012	PREC-SA5-16-062012	PREC-SA5-16-062012-DP	PREC-SA5-17-062012
		Sampling Date	6/19/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.11 U	0.108 U	0.14 U	0.143 UJ	0.113 U	0.115 U	0.132 U	0.105 U	0.106 U	0.101 U
8082	AROCLOR 1221	mg/kg	0.11 U	0.108 U	0.14 U	0.143 UJ	0.113 U	0.115 U	0.132 U	0.105 U	0.106 U	0.101 U
8082	AROCLOR 1232	mg/kg	0.11 U	0.108 U	0.14 U	0.143 UJ	0.113 U	0.115 U	0.132 U	0.105 U	0.106 U	0.101 U
8082	AROCLOR 1242	mg/kg	0.11 U	0.108 U	0.14 U	0.143 UJ	0.113 U	0.115 U	0.132 U	0.105 U	0.106 U	0.101 U
8082	AROCLOR 1248	mg/kg	0.11 U	0.108 U	0.14 U	0.143 UJ	0.113 U	0.115 U	0.132 U	0.105 U	0.106 U	0.101 U
8082	AROCLOR 1254	mg/kg	0.239	0.108 U	0.14 U	0.143 U	0.145	0.189	0.132 U	0.233	0.106 U	0.101 U
8082	AROCLOR 1260	mg/kg	0.11 U	0.108 U	0.14 U	0.143 UJ	0.113 U	0.115 U	0.132 U	0.105 U	0.106 U	0.101 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.239	0 U	0 U	0 U	0.145	0.189	0 U	0.233	0 U	0 U
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-10	PREC-SA5-11	PREC-SA5-12	PREC-SA5-13	PREC-SA5-14	PREC-SA5-14	PREC-SA5-15	PREC-SA5-16	PREC-SA5-16	PREC-SA5-17
		Field Sample ID	PREC-SA5-10-061912	PREC-SA5-11-062012	PREC-SA5-12-062012	PREC-SA5-13-062012	PREC-SA5-14-062012	PREC-SA5-14-062012-DP	PREC-SA5-15-062012	PREC-SA5-16-062012	PREC-SA5-16-062012-DP	PREC-SA5-17-062012
		Sampling Date	6/19/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-10	PREC-SA5-11	PREC-SA5-12	PREC-SA5-13	PREC-SA5-14	PREC-SA5-14	PREC-SA5-15	PREC-SA5-16	PREC-SA5-16	PREC-SA5-17
		Field Sample ID	PREC-SA5-10-061912	PREC-SA5-11-062012	PREC-SA5-12-062012	PREC-SA5-13-062012	PREC-SA5-14-062012	PREC-SA5-14-062012-DP	PREC-SA5-15-062012	PREC-SA5-16-062012	PREC-SA5-16-062012-DP	PREC-SA5-17-062012
		Sampling Date	6/19/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-10	PREC-SA5-11	PREC-SA5-12	PREC-SA5-13	PREC-SA5-14	PREC-SA5-14	PREC-SA5-15	PREC-SA5-16	PREC-SA5-16	PREC-SA5-17
		Field Sample ID	PREC-SA5-10-061912	PREC-SA5-11-062012	PREC-SA5-12-062012	PREC-SA5-13-062012	PREC-SA5-14-062012	PREC-SA5-14-062012-DP	PREC-SA5-15-062012	PREC-SA5-16-062012	PREC-SA5-16-062012-DP	PREC-SA5-17-062012
		Sampling Date	6/19/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-10	PREC-SA5-11	PREC-SA5-12	PREC-SA5-13	PREC-SA5-14	PREC-SA5-14	PREC-SA5-15	PREC-SA5-16	PREC-SA5-16	PREC-SA5-17
		Field Sample ID	PREC-SA5-10-061912	PREC-SA5-11-062012	PREC-SA5-12-062012	PREC-SA5-13-062012	PREC-SA5-14-062012	PREC-SA5-14-062012-DP	PREC-SA5-15-062012	PREC-SA5-16-062012	PREC-SA5-16-062012-DP	PREC-SA5-17-062012
		Sampling Date	6/19/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITroso-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O <sub>3</sub> O <sub>2</sub> -TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
mg/L = Milligram per liter  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound

TCLP = Toxicity Characeristic Leaching Procedure  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-18	PREC-SA5-19	PREC-SA5-COMP-01	PREC-SA5-COMP-02	PREC-SA5-COMP-03	PREC-SA5-COMP-04	PREC-SA5-COMP-05
		Field Sample ID	PREC-SA5-18-062012	PREC-SA5-19-062012	PREC-SA5-Composite-01-061912	PREC-SA5-Composite-02-061912	PREC-SA5-Composite-03-062012	PREC-SA5-Composite-04-062012	PREC-SA5-Composite-05-062012
		Sampling Date	6/20/2012	6/20/2012	6/19/2012	6/19/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
SW 1010	Flashpoint	Degree Fahrenheit	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8151A TCLP	2,4,5-TP (Silvex), TCLP	mg/L	NA	NA	NA	NA	NA	410	360
SW 6010B-TCLP	ARSENIC, TCLP	mg/L	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
SW 6010B-TCLP	CADMIUM, TCLP	mg/L	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
6010B	ALUMINIUM	mg/kg	NA	NA	5100	5200	5400	6100	5900
6020	ANTIMONY	mg/kg	NA	NA	0.293	0.264	0.885	NA	NA
6020	ARSENIC	mg/kg	NA	NA	6.54	7.23	9.81	NA	NA
6010B	BARIUM	mg/kg	NA	NA	64.8	80	123	122	84.4
6010B	BERYLLIUM	mg/kg	NA	NA	0.863 U	0.893 U	0.915 U	0.999 U	0.835 U
6010B	CADMIUM	mg/kg	NA	NA	5.17 U	5.34 U	5.48 U	5.98 U	5 U
6010B	CALCIUM	mg/kg	NA	NA	97100	14000	18800	15000	14800
6010B	CHROMIUM	mg/kg	NA	NA	10.4	13.2	13.1	17.5	17.6
6010B	COBALT	mg/kg	NA	NA	3.74	3.7	4.27	4.2	4.48
6020	COPPER	mg/kg	NA	NA	21.2	22.5	43.9	NA	NA
6010B	IRON	mg/kg	NA	NA	9080	10300	11700	11600	11700
6010B	LEAD	mg/kg	NA	NA	83.2	86.2	136	217	105
6010B	MAGNESIUM	mg/kg	NA	NA	5970	4810	6790	5040	6020
6020	MANGANESE	mg/kg	NA	NA	547	535	514	NA	NA
7471	MERCURY	mg/kg	NA	NA	0.16	0.182	0.255	0.258 J+	0.487
6010B	NICKEL	mg/kg	NA	NA	7.93	8.08	10	10.1	8.82
6010B	POTASSIUM	mg/kg	NA	NA	701	638	744	716	648
6010B	SELENIUM	mg/kg	NA	NA	17.2 U	17.8 U	18.2 U	19.9 U	16.6 U
6020	SILVER	mg/kg	NA	NA	0.105	0.0996 U	0.199	NA	NA
6010B	SODIUM	mg/kg	NA	NA	172 U	178 U	182 U	199 U	166 U
6020	THALLIUM	mg/kg	NA	NA	0.21 U	0.199 U	0.226 U	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	13.6	14.2	15	15.9	16.4
6010B	ZINC	mg/kg	NA	NA	76	115	161	224	121
8081	4,4'-DDD	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	4,4'-DDE	mg/kg	NA	NA	0.245	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	4,4'-DDT	mg/kg	NA	NA	0.112	0.267 U	0.288 U	0.06 U	0.0512 U
8081	ALDRIN	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ALPHA-BHC	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	BETA-BHC	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	CHLORDANE	mg/kg	NA	NA	0.105 U	0.107 U	0.115 U	0.12 U	0.102 U
8081	DELTA-BHC	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	DIELDRIN	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ENDOSULFAN I	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ENDOSULFAN II	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ENDRIN	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	ENDRIN KETONE	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	HEPTACHLOR	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-18	PREC-SA5-19	PREC-SA5-COMP-01	PREC-SA5-COMP-02	PREC-SA5-COMP-03	PREC-SA5-COMP-04	PREC-SA5-COMP-05
		Field Sample ID	PREC-SA5-18-062012	PREC-SA5-19-062012	PREC-SA5-Composite-01-061912	PREC-SA5-Composite-02-061912	PREC-SA5-Composite-03-062012	PREC-SA5-Composite-04-062012	PREC-SA5-Composite-05-062012
		Sampling Date	6/20/2012	6/20/2012	6/19/2012	6/19/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	METHOXYCHLOR	mg/kg	NA	NA	0.0527 U	0.0535 U	0.0576 U	0.06 U	0.0512 U
8081	TOXAPHENE	mg/kg	NA	NA	0.316 U	0.321 U	0.346 U	0.36 U	0.307 U
8082	AROCLOR 1016	mg/kg	0.105 U	0.105 U	0.105 U	0.107 U	0.115 U	0.12 U	0.103 U
8082	AROCLOR 1221	mg/kg	0.105 U	0.105 U	0.105 U	0.107 U	0.115 U	0.12 U	0.103 U
8082	AROCLOR 1232	mg/kg	0.105 U	0.105 U	0.105 U	0.107 U	0.115 U	0.12 U	0.103 U
8082	AROCLOR 1242	mg/kg	0.105 U	0.105 U	0.105 U	0.107 U	0.115 U	0.12 U	0.103 U
8082	AROCLOR 1248	mg/kg	0.105 U	0.105 U	0.105 U	0.107 U	0.115 U	0.12 U	0.103 U
8082	AROCLOR 1254	mg/kg	0.105 U	0.377	0.111	0.114	0.115 U	0.176	0.125
8082	AROCLOR 1260	mg/kg	0.105 U	0.105 U	0.105 U	0.107 U	0.115 U	0.12 U	0.103 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.377	0.111	0.114	0 U	0.176	0.125
8151	2,4,5-T	µg/kg	NA	NA	21 U	21 U	23 U	23 U	21 UJ
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	21 U	21 U	23 U	23 U	21 UJ
8151	2,4-D	µg/kg	NA	NA	83 U	83 U	91 U	93 U	83 UJ
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	0.36	0.32
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	19 U	16 U
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	27	25
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	13 U	12 U	14 U	14 U	12 UJ
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	10 U	10 U	11 U	12 U	10 UJ
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	0.13	0.11
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	0.23 U	0.2 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	2-HEXANONE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	ACETONE	µg/kg	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	ACROLEIN	µg/kg dry	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	ACRYLONITRILE	µg/kg	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	103 U	111 U	117 U	128 U	107 U
8260	BENZENE	µg/kg dry	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	BROMOFORM	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-18	PREC-SA5-19	PREC-SA5-COMP-01	PREC-SA5-COMP-02	PREC-SA5-COMP-03	PREC-SA5-COMP-04	PREC-SA5-COMP-05
		Field Sample ID	PREC-SA5-18-062012	PREC-SA5-19-062012	PREC-SA5-Composite-01-061912	PREC-SA5-Composite-02-061912	PREC-SA5-Composite-03-062012	PREC-SA5-Composite-04-062012	PREC-SA5-Composite-05-062012
		Sampling Date	6/20/2012	6/20/2012	6/19/2012	6/19/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CHLOROBENZENE	µg/kg	NA	NA	10.3 U	11.1 U	11.7 U	12.8 U	10.7 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CHLOROETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CHLOROFORM	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CHLOROMETHANE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CHLOROPRENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	10.3 U	11.1 U	11.7 U	12.8 U	10.7 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	ETHYLBENZENE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	4.94 U
8260	IODOMETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	M,P-XYLENE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	O-XYLENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	PENTACHLOROETHANE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	PROPIONITRILE	µg/kg dry	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	STYRENE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	TOLUENE	µg/kg dry	NA	NA	51.7 U	55.7 U	58.7 U	63.8 U	53.7 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	VINYL ACETATE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	VINYL CHLORIDE	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	2.07 U	2.23 U	2.35 U	2.55 U	2.15 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	5.17 U	5.57 U	5.87 U	6.38 U	5.37 U
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-18	PREC-SA5-19	PREC-SA5-COMP-01	PREC-SA5-COMP-02	PREC-SA5-COMP-03	PREC-SA5-COMP-04	PREC-SA5-COMP-05
		Field Sample ID	PREC-SA5-18-062012	PREC-SA5-19-062012	PREC-SA5-Composite-01-061912	PREC-SA5-Composite-02-061912	PREC-SA5-Composite-03-062012	PREC-SA5-Composite-04-062012	PREC-SA5-Composite-05-062012
		Sampling Date	6/20/2012	6/20/2012	6/19/2012	6/19/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	3100 U	3160 U	3380 U	3570 U	3050 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	2-METHYLPHENOL	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2-NITROANILINE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	2-NITROPHENOL	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	2-PICOLINE	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	3-NITROANILINE	µg/kg	NA	NA	7750 U	7890 U	8440 U	8930 U	7630 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	4-NITROANILINE	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	ACENAPHTHENE	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	ACENAPHTHYLENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	ACETOPHENONE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	ANILINE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	ANTHRACENE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	BENZIDINE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	BENZO[A]PYRENE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	842
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	7750 U	7890 U	8440 U	8930 U	7630 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	775 U	843	2330	893 U	3390
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	775 U	996	2090	893 U	3820
8270	BENZYL ALCOHOL	µg/kg	NA	NA	775 U	1410	2470	1060	5940
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	775 U	789 U	1290	893 U	2630



Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-18	PREC-SA5-19	PREC-SA5-COMP-01	PREC-SA5-COMP-02	PREC-SA5-COMP-03	PREC-SA5-COMP-04	PREC-SA5-COMP-05
		Field Sample ID	PREC-SA5-18-062012	PREC-SA5-19-062012	PREC-SA5-Composite-01-061912	PREC-SA5-Composite-02-061912	PREC-SA5-Composite-03-062012	PREC-SA5-Composite-04-062012	PREC-SA5-Composite-05-062012
		Sampling Date	6/20/2012	6/20/2012	6/19/2012	6/19/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	775 U	789 U	1170	893 U	1930
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	CARBAZOLE	µg/kg	NA	NA	775 U	789 U	844 U	893 R	763 R
8270	CHLOROBENZILATE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	CHRYSENE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	DIALATE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	806
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	DIBENZOFURAN	µg/kg	NA	NA	775 U	1070	2240	893 U	4300
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	DIMETHOATE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	DISULFOTON	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	FAMPHUR	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	FLUORANTHENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	FLUORENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	1740 U	1770 U	1890 U	2000 U	1710 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	1210	1910	4130	1180	9890
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U

Table C-2  
SA5-D Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5-18	PREC-SA5-19	PREC-SA5-COMP-01	PREC-SA5-COMP-02	PREC-SA5-COMP-03	PREC-SA5-COMP-04	PREC-SA5-COMP-05
		Field Sample ID	PREC-SA5-18-062012	PREC-SA5-19-062012	PREC-SA5-Composite-01-061912	PREC-SA5-Composite-02-061912	PREC-SA5-Composite-03-062012	PREC-SA5-Composite-04-062012	PREC-SA5-Composite-05-062012
		Sampling Date	6/20/2012	6/20/2012	6/19/2012	6/19/2012	6/20/2012	6/20/2012	6/20/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	3100 U	3160 U	3380 U	3570 U	3050 U
8270	ISODRIN	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	ISOPHORONE	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	ISOSAFROLE	µg/kg dry	NA	NA	775 U	789 U	1070	893 U	2210
8270	KEPONE, SVOC	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	METHAPYRILENE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	METHYL PARATHION	µg/kg	NA	NA	39500 U	40300 U	43100 U	45600 U	38900 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	NITROBENZENE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	5220 U	5310 U	5680 U	6010 U	5140 U
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	O-TOLUIDINE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PARATHION	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PHENACETIN	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PHENANTHRENE	µg/kg	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PHENOL	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	PHORATE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	PRONAMIDE	µg/kg	NA	NA	775 U	920	3020	893 U	4400
8270	PYRENE	µg/kg dry	NA	NA	1550 U	1580 U	1690 U	1790 U	1530 U
8270	PYRIDINE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	SAFROLE	µg/kg dry	NA	NA	3480 U	3540 U	3790 U	4010 U	3430 U
8270	SULFOTEPP	µg/kg	NA	NA	1050	1750	3900	1020	7840
8270	THIONAZIN	µg/kg	NA	NA	775 U	789 U	844 U	893 U	763 U

Notes:

µg/kg = Microgram per kilogram

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

SVOC = Semivolatile organic compound

TCLP = Toxicity Characteristic Leaching Procedure

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5D-1	CSD-SA5D-2	CSD-SA5D-2	CSD-SA5D-3	CSD-SA5D-4	CSD-SA5D-5	CSD-SA5D-6	CSD-SA5D-7	CSD-SA5D-8
		Field Sample ID	CSD-SA5D-1-082212	CSD-SA5D-2-082212	CSD-SA5D-2-082212-DP	CSD-SA5D-3-082212	CSD-SA5D-4-082312	CSD-SA5D-5-082312	CSD-SA5D-6-082412	CSD-SA5D-7-082412	CSD-SA5D-8-083012
		Sampling Date	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/23/2012	8/23/2012	8/24/2012	8/24/2012	8/30/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8082	AROCLOR 1016	mg/kg	0.053 U	0.042 U	0.041 U	0.04 U	0.039 U	0.041 U	0.14 U	0.15 U	0.061 U
8082	AROCLOR 1221	mg/kg	0.053 U	0.042 U	0.041 U	0.04 U	0.039 U	0.041 U	0.14 U	0.15 U	0.061 U
8082	AROCLOR 1232	mg/kg	0.053 U	0.042 U	0.041 U	0.04 U	0.039 U	0.041 U	0.14 U	0.15 U	0.061 U
8082	AROCLOR 1242	mg/kg	0.053 U	0.098	0.098	0.17	0.21	0.041 U	0.14 U	0.15 U	0.73
8082	AROCLOR 1248	mg/kg	0.053 U	0.042 U	0.041 U	0.04 U	0.039 U	0.041 U	0.14 U	0.15 U	0.061 U
8082	AROCLOR 1254	mg/kg	0.053 U	0.042 U	0.041 U	0.04 U	0.039 U	0.041 U	0.14 U	0.15 U	0.13
8082	AROCLOR 1260	mg/kg	0.053 U	0.042 U	0.041 U	0.04 U	0.039 U	0.041 U	0.14 U	0.15 U	0.061 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.098	0.098	0.17	0.21	0 U	0 U	0 U	0.86
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5D-1	CSD-SA5D-2	CSD-SA5D-2	CSD-SA5D-3	CSD-SA5D-4	CSD-SA5D-5	CSD-SA5D-6	CSD-SA5D-7	CSD-SA5D-8
		Field Sample ID	CSD-SA5D-1-082212	CSD-SA5D-2-082212	CSD-SA5D-2-082212-DP	CSD-SA5D-3-082212	CSD-SA5D-4-082312	CSD-SA5D-5-082312	CSD-SA5D-6-082412	CSD-SA5D-7-082412	CSD-SA5D-8-083012
		Sampling Date	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/23/2012	8/23/2012	8/24/2012	8/24/2012	8/30/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5D-1	CSD-SA5D-2	CSD-SA5D-2	CSD-SA5D-3	CSD-SA5D-4	CSD-SA5D-5	CSD-SA5D-6	CSD-SA5D-7	CSD-SA5D-8
		Field Sample ID	CSD-SA5D-1-082212	CSD-SA5D-2-082212	CSD-SA5D-2-082212-DP	CSD-SA5D-3-082212	CSD-SA5D-4-082312	CSD-SA5D-5-082312	CSD-SA5D-6-082412	CSD-SA5D-7-082412	CSD-SA5D-8-083012
		Sampling Date	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/23/2012	8/23/2012	8/24/2012	8/24/2012	8/30/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIHENYL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5D-1	CSD-SA5D-2	CSD-SA5D-2	CSD-SA5D-3	CSD-SA5D-4	CSD-SA5D-5	CSD-SA5D-6	CSD-SA5D-7	CSD-SA5D-8
		Field Sample ID	CSD-SA5D-1-082212	CSD-SA5D-2-082212	CSD-SA5D-2-082212-DP	CSD-SA5D-3-082212	CSD-SA5D-4-082312	CSD-SA5D-5-082312	CSD-SA5D-6-082412	CSD-SA5D-7-082412	CSD-SA5D-8-083012
		Sampling Date	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/23/2012	8/23/2012	8/24/2012	8/24/2012	8/30/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3 SA5-D Confirmation and Verification Sediment Sampling Results Portage Creek Area Site Kalamazoo, Kalamazoo County, Michigan											
		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5D-1	CSD-SA5D-2	CSD-SA5D-2	CSD-SA5D-3	CSD-SA5D-4	CSD-SA5D-5	CSD-SA5D-6	CSD-SA5D-7	CSD-SA5D-8
		Field Sample ID	CSD-SA5D-1-082212	CSD-SA5D-2-082212	CSD-SA5D-2-082212-DP	CSD-SA5D-3-082212	CSD-SA5D-4-082312	CSD-SA5D-5-082312	CSD-SA5D-6-082412	CSD-SA5D-7-082412	CSD-SA5D-8-083012
		Sampling Date	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/23/2012	8/23/2012	8/24/2012	8/24/2012	8/30/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	DRO (C10-C20)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	DRO (C20-C34)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	ERO (C8-C36)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	GRO (C5-C12)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SASD-9	CSD-SASD-10	CSD-SA5D-11	CSD-SA5D-12	CSD-SA5D-12	CSD-SA5D-13	CSD-SA5D-14	CSD-SA5D-15	CSD-SA5D-16
		Field Sample ID	CSD-SASD-9-090712	CSD-SASD-10-090712	CSD-SA5D-11-090712	CSD-SA5D-12-091012	CSD-SA5D-12-091012-DP	CSD-SA5D-13-091112	CSD-SA5D-14-091712	CSD-SA5D-15-091712	CSD-SA5D-16-091912
		Sampling Date	9/7/2012	9/7/2012	9/7/2012	9/10/2012	9/10/2012	9/11/2012	9/18/2012	9/18/2012	9/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8082	AROCLOR 1016	mg/kg	0.043 U	0.04 U	0.04 U	0.042 U	0.042 U	0.049 U	0.05 U	0.042 U	0.042 U
8082	AROCLOR 1221	mg/kg	0.043 U	0.04 U	0.04 U	0.042 U	0.042 U	0.049 U	0.05 U	0.042 U	0.042 U
8082	AROCLOR 1232	mg/kg	0.043 U	0.04 U	0.04 U	0.042 U	0.042 U	0.049 U	0.05 U	0.042 U	0.042 U
8082	AROCLOR 1242	mg/kg	0.13	0.045	0.04 U	0.14	0.11	0.049 U	0.26	0.042 U	0.21
8082	AROCLOR 1248	mg/kg	0.043 U	0.04 U	0.04 U	0.042 U	0.042 U	0.049 U	0.05 U	0.042 U	0.042 U
8082	AROCLOR 1254	mg/kg	0.043 U	0.04 U	0.04 U	0.042 U	0.042 U	0.049 U	0.05 U	0.042 U	0.042 U
8082	AROCLOR 1260	mg/kg	0.043 U	0.04 U	0.04 U	0.042 U	0.042 U	0.049 U	0.05 U	0.042 U	0.042 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.13	0.045	0 U	0.14	0.11	0 U	0.26	0 U	0.21
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SASD-9	CSD-SASD-10	CSD-SA5D-11	CSD-SA5D-12	CSD-SA5D-12	CSD-SA5D-13	CSD-SA5D-14	CSD-SA5D-15	CSD-SA5D-16
		Field Sample ID	CSD-SASD-9-090712	CSD-SASD-10-090712	CSD-SA5D-11-090712	CSD-SA5D-12-091012	CSD-SA5D-12-091012-DP	CSD-SA5D-13-091112	CSD-SA5D-14-091712	CSD-SA5D-15-091712	CSD-SA5D-16-091912
		Sampling Date	9/7/2012	9/7/2012	9/7/2012	9/10/2012	9/10/2012	9/11/2012	9/18/2012	9/18/2012	9/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SASD-9	CSD-SASD-10	CSD-SA5D-11	CSD-SA5D-12	CSD-SA5D-12	CSD-SA5D-13	CSD-SA5D-14	CSD-SA5D-15	CSD-SA5D-16
		Field Sample ID	CSD-SASD-9-090712	CSD-SASD-10-090712	CSD-SA5D-11-090712	CSD-SA5D-12-091012	CSD-SA5D-12-091012-DP	CSD-SA5D-13-091112	CSD-SA5D-14-091712	CSD-SA5D-15-091712	CSD-SA5D-16-091912
		Sampling Date	9/7/2012	9/7/2012	9/7/2012	9/10/2012	9/10/2012	9/11/2012	9/18/2012	9/18/2012	9/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SASD-9	CSD-SASD-10	CSD-SA5D-11	CSD-SA5D-12	CSD-SA5D-12	CSD-SA5D-13	CSD-SA5D-14	CSD-SA5D-15	CSD-SA5D-16
		Field Sample ID	CSD-SASD-9-090712	CSD-SASD-10-090712	CSD-SA5D-11-090712	CSD-SA5D-12-091012	CSD-SA5D-12-091012-DP	CSD-SA5D-13-091112	CSD-SA5D-14-091712	CSD-SA5D-15-091712	CSD-SA5D-16-091912
		Sampling Date	9/7/2012	9/7/2012	9/7/2012	9/10/2012	9/10/2012	9/11/2012	9/18/2012	9/18/2012	9/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C-3 SA5-D Confirmation and Verification Sediment Sampling Results Portage Creek Area Site Kalamazoo, Kalamazoo County, Michigan											
		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SASD-9	CSD-SASD-10	CSD-SA5D-11	CSD-SA5D-12	CSD-SA5D-12	CSD-SA5D-12	CSD-SA5D-13	CSD-SA5D-14	CSD-SA5D-15
		Field Sample ID	CSD-SASD-9-090712	CSD-SASD-10-090712	CSD-SA5D-11-090712	CSD-SA5D-12-091012	CSD-SA5D-12-091012-DP	CSD-SA5D-12-091112	CSD-SA5D-13-091712	CSD-SA5D-14-091712	CSD-SA5D-15-091712
		Sampling Date	9/7/2012	9/7/2012	9/7/2012	9/10/2012	9/10/2012	9/10/2012	9/11/2012	9/18/2012	9/18/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	DRO (C10-C20)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	DRO (C20-C34)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	ERO (C8-C36)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA
SW 8015B	GRO (C5-C12)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

µg/kg = Microgram per kilogram

bss = Below sediment surface

DRO = Diesel-range oragnics

ERO = Extended Range Organics

GRO = Gasoline-range oragnics

ID = Identification

J = Estimated result

NA - Not analyzed or applicable.

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Verification	Verification	Verification	Verification	Verification	Investigative	Verification
		Location ID	CSD-SA5D-7	CSD-SASD-9	CSD-SA5D-12	CSD-SA5D-14	CSD-SA5D-15	INV-SA5D-16	CSD-SA5D-16
		Field Sample ID	CSD-SA5D-7(30")-082412	CSD-SASD-9(30")-090612	CSD-SA5D-12(42")-091012	CSD-SA5D-14(36")-091712	CSD-SA5D-15(54")-091712	INV-SA5D-16(42")-091812	CSD-SA5D-16(42")-091812
		Sampling Date	8/24/2012	9/6/2012	9/10/2012	9/17/2012	9/17/2012	9/18/2012	9/18/2012
		Depth Interval (inches bss)	0-30	0-30	0-42	0-36	0-54	0-42	0-42
Analytical Method	Chemical Name	Unit							
8082	AROCLOR 1016	mg/kg	0.61 U	0.053 U	0.046 U	0.053 U	0.051 U	0.172 U	0.054 U
8082	AROCLOR 1221	mg/kg	0.61 U	0.053 U	0.046 U	0.053 U	0.051 U	0.172 U	0.054 U
8082	AROCLOR 1232	mg/kg	0.61 U	0.053 U	0.046 U	0.053 U	0.051 U	0.172 U	0.054 U
8082	AROCLOR 1242	mg/kg	130	0.86	2.2	3.5	3.9	1.03	17
8082	AROCLOR 1248	mg/kg	0.61 U	0.053 U	0.046 U	0.053 U	0.051 U	0.172 U	0.054 U
8082	AROCLOR 1254	mg/kg	24	0.16	0.25	0.5	0.63	0.172 U	2.3
8082	AROCLOR 1260	mg/kg	0.61 U	0.053 U	0.046 U	0.053 U	0.051 U	0.172 U	0.054 U
8082	Total PCBs (Sum of Detections)	mg/kg	154	1.02	2.45	4	4.53	1.03	19.3
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	2-HEXANONE	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	ACETONE	µg/kg dry	NA	NA	NA	NA	NA	172 U	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	ACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	17.2 U	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CHLOROFORM	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	17.2 U	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Verification	Verification	Verification	Verification	Verification	Investigative	Verification
		Location ID	CSD-SA5D-7	CSD-SASD-9	CSD-SA5D-12	CSD-SA5D-14	CSD-SA5D-15	INV-SA5D-16	CSD-SA5D-16
		Field Sample ID	CSD-SA5D-7(30")-082412	CSD-SASD-9(30")-090612	CSD-SA5D-12(42")-091012	CSD-SA5D-14(36")-091712	CSD-SA5D-15(54")-091712	INV-SA5D-16(42")-091812	CSD-SA5D-16(42")-091812
		Sampling Date	8/24/2012	9/6/2012	9/10/2012	9/17/2012	9/17/2012	9/18/2012	9/18/2012
		Depth Interval (inches bss)	0-30	0-30	0-42	0-36	0-54	0-42	0-42
Analytical Method	Chemical Name	Unit							
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	ETHYLBENZENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	IODOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	M,P-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	86.2 U	NA
8260	STYRENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	3.45 U	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	8.62 U	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	294 U	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	1030 U	NA
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Verification	Verification	Verification	Verification	Verification	Investigative	Verification
		Location ID	CSD-SA5D-7	CSD-SASD-9	CSD-SA5D-12	CSD-SA5D-14	CSD-SA5D-15	INV-SA5D-16	CSD-SA5D-16
		Field Sample ID	CSD-SA5D-7(30'')-082412	CSD-SASD-9(30'')-090612	CSD-SA5D-12(42'')-091012	CSD-SA5D-14(36'')-091712	CSD-SA5D-15(54'')-091712	INV-SA5D-16(42'')-091812	CSD-SA5D-16(42'')-091812
		Sampling Date	8/24/2012	9/6/2012	9/10/2012	9/17/2012	9/17/2012	9/18/2012	9/18/2012
		Depth Interval (inches bss)	0-30	0-30	0-42	0-36	0-54	0-42	0-42
Analytical Method	Chemical Name	Unit							
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	516 UJ	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	2580 UJ	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	3-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	516 UJ	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	4-AMINOBIPHENYL	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	4-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	516 UJ	NA
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	BENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	2580 UJ	NA
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	NA	NA	NA	516 UJ	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	258 U	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	258 U	NA
8270	CARBAZOLE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA



Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Verification	Verification	Verification	Verification	Verification	Investigative	Verification
		Location ID	CSD-SA5D-7	CSD-SASD-9	CSD-SA5D-12	CSD-SA5D-14	CSD-SA5D-15	INV-SA5D-16	CSD-SA5D-16
		Field Sample ID	CSD-SA5D-7(30")-082412	CSD-SASD-9(30")-090612	CSD-SA5D-12(42")-091012	CSD-SA5D-14(36")-091712	CSD-SA5D-15(54")-091712	INV-SA5D-16(42")-091812	CSD-SA5D-16(42")-091812
		Sampling Date	8/24/2012	9/6/2012	9/10/2012	9/17/2012	9/17/2012	9/18/2012	9/18/2012
		Depth Interval (inches bss)	0-30	0-30	0-42	0-36	0-54	0-42	0-42
Analytical Method	Chemical Name	Unit							
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	DIALATE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	DIBENZOFURAN	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	258 U	NA
8270	DIMETHOATE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	258 U	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	258 U	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	258 U	NA
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	DISULFOTON	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	FAMPHUR	µg/kg dry	NA	NA	NA	NA	NA	579 U	NA
8270	FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	FLUORENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	NA	NA	NA	1030 UJ	NA
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	ISODRIN	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	ISOPHORONE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	KEPONE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	13200 U	NA
8270	METHAPYRILENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	METHYL PARATHION	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	1740 U	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	294 U	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	294 UJ	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	1160 UJ	NA
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	PARATHION	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA

Table C-3  
SA5-D Confirmation and Verification Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Verification	Verification	Verification	Verification	Verification	Investigative	Verification
		Location ID	CSD-SA5D-7	CSD-SASD-9	CSD-SA5D-12	CSD-SA5D-14	CSD-SA5D-15	INV-SA5D-16	CSD-SA5D-16
		Field Sample ID	CSD-SA5D-7(30'')-082412	CSD-SASD-9(30'')-090612	CSD-SA5D-12(42'')-091012	CSD-SA5D-14(36'')-091712	CSD-SA5D-15(54'')-091712	INV-SA5D-16(42'')-091812	CSD-SA5D-16(42'')-091812
		Sampling Date	8/24/2012	9/6/2012	9/10/2012	9/17/2012	9/17/2012	9/18/2012	9/18/2012
		Depth Interval (inches bss)	0-30	0-30	0-42	0-36	0-54	0-42	0-42
Analytical Method	Chemical Name	Unit							
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	PHENACETIN	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	PHENANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	516 U	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	PRONAMIDE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	258 UJ	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	294 U	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	SULFOTEPP	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
8270	THIONAZIN	µg/kg dry	NA	NA	NA	NA	NA	1160 U	NA
SW 8015B	DRO (C10-C20)	mg/kg dry	NA	NA	NA	NA	NA	268 J	NA
SW 8015B	DRO (C20-C34)	mg/kg dry	NA	NA	NA	NA	NA	1160 J	NA
SW 8015B	ERO (C8-C36)	mg/kg dry	NA	NA	NA	NA	NA	1290 J	NA
SW 8015B	GRO (C5-C12)	mg/kg dry	NA	NA	NA	NA	NA	569 U	NA

Notes:  
µg/kg = Microgram per kilogram  
bss = Below sediment surface  
DRO = Diesel-range oragnics  
ERO = Extended Range Organics  
GRO = Gasoline-range oragnics  
ID = Identification  
J = Estimated result  
NA - Not analyzed or applicable.  
mg/kg = Milligram per kilogram  
PCB = Polychlorinated biphenyl  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-01	PSTC-SA5D-02	PSTC-SA5D-03	PSTC-SA5D-04	PSTC-SA5D-04	PSTC-SA5D-05	PSTC-SA5D-06	PSTC-SA5D-07
		Field Sample ID	PSTC-SA5D-01-102512	PSTC-SA5D-02-102512	PSTC-SA5D-03-102512	PSTC-SA5D-04-102512	PSTC-SA5D-04-102512-DP	PSTC-SA5D-05-102512	PSTC-SA5D-06-102512	PSTC-SA5D-07-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
7471	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-01	PSTC-SA5D-02	PSTC-SA5D-03	PSTC-SA5D-04	PSTC-SA5D-04	PSTC-SA5D-05	PSTC-SA5D-06	PSTC-SA5D-07
		Field Sample ID	PSTC-SA5D-01-102512	PSTC-SA5D-02-102512	PSTC-SA5D-03-102512	PSTC-SA5D-04-102512	PSTC-SA5D-04-102512-DP	PSTC-SA5D-05-102512	PSTC-SA5D-06-102512	PSTC-SA5D-07-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	AROCLOR 1221	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	AROCLOR 1232	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	AROCLOR 1242	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	AROCLOR 1248	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	AROCLOR 1254	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	AROCLOR 1260	mg/kg	0.128 U	0.128 U	0.136 U	0.134 U	0.131 U	0.132 U	0.119 U	0.141 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	4-NITROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-01	PSTC-SA5D-02	PSTC-SA5D-03	PSTC-SA5D-04	PSTC-SA5D-04	PSTC-SA5D-05	PSTC-SA5D-06	PSTC-SA5D-07
		Field Sample ID	PSTC-SA5D-01-102512	PSTC-SA5D-02-102512	PSTC-SA5D-03-102512	PSTC-SA5D-04-102512	PSTC-SA5D-04-102512-DP	PSTC-SA5D-05-102512	PSTC-SA5D-06-102512	PSTC-SA5D-07-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-01	PSTC-SA5D-02	PSTC-SA5D-03	PSTC-SA5D-04	PSTC-SA5D-04	PSTC-SA5D-05	PSTC-SA5D-06	PSTC-SA5D-07
		Field Sample ID	PSTC-SA5D-01-102512	PSTC-SA5D-02-102512	PSTC-SA5D-03-102512	PSTC-SA5D-04-102512	PSTC-SA5D-04-102512-DP	PSTC-SA5D-05-102512	PSTC-SA5D-06-102512	PSTC-SA5D-07-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA



Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-01	PSTC-SA5D-02	PSTC-SA5D-03	PSTC-SA5D-04	PSTC-SA5D-04	PSTC-SA5D-05	PSTC-SA5D-06	PSTC-SA5D-07
		Field Sample ID	PSTC-SA5D-01-102512	PSTC-SA5D-02-102512	PSTC-SA5D-03-102512	PSTC-SA5D-04-102512	PSTC-SA5D-04-102512-DP	PSTC-SA5D-05-102512	PSTC-SA5D-06-102512	PSTC-SA5D-07-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-01	PSTC-SA5D-02	PSTC-SA5D-03	PSTC-SA5D-04	PSTC-SA5D-04	PSTC-SA5D-05	PSTC-SA5D-06	PSTC-SA5D-07
		Field Sample ID	PSTC-SA5D-01-102512	PSTC-SA5D-02-102512	PSTC-SA5D-03-102512	PSTC-SA5D-04-102512	PSTC-SA5D-04-102512-DP	PSTC-SA5D-05-102512	PSTC-SA5D-06-102512	PSTC-SA5D-07-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-08	PSTC-SA5D-09	PSTC-SA5D-10	PSTC-SA5D-11	PSTC-SA5D-12	PSTC-SA5D-13	PSTC-SA5D-14	PSTC-SA5D-14
		Field Sample ID	PSTC-SA5D-08-102512	PSTC-SA5D-09-102512	PSTC-SA5D-10-102512	PSTC-SA5D-11-102512	PSTC-SA5D-12-102512	PSTC-SA5D-13-102512	PSTC-SA5D-14-102512	PSTC-SA5D-14-102512-DP
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
7471	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6020	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-08	PSTC-SA5D-09	PSTC-SA5D-10	PSTC-SA5D-11	PSTC-SA5D-12	PSTC-SA5D-13	PSTC-SA5D-14	PSTC-SA5D-14
		Field Sample ID	PSTC-SA5D-08-102512	PSTC-SA5D-09-102512	PSTC-SA5D-10-102512	PSTC-SA5D-11-102512	PSTC-SA5D-12-102512	PSTC-SA5D-13-102512	PSTC-SA5D-14-102512	PSTC-SA5D-14-102512-DP
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	AROCLOR 1221	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	AROCLOR 1232	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	AROCLOR 1242	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	AROCLOR 1248	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	AROCLOR 1254	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	AROCLOR 1260	mg/kg	0.152 U	0.144 U	0.135 U	0.133 U	0.163 U	0.146 U	0.136 U	0.146 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	4-NITROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-08	PSTC-SA5D-09	PSTC-SA5D-10	PSTC-SA5D-11	PSTC-SA5D-12	PSTC-SA5D-13	PSTC-SA5D-14	PSTC-SA5D-14
		Field Sample ID	PSTC-SA5D-08-102512	PSTC-SA5D-09-102512	PSTC-SA5D-10-102512	PSTC-SA5D-11-102512	PSTC-SA5D-12-102512	PSTC-SA5D-13-102512	PSTC-SA5D-14-102512	PSTC-SA5D-14-102512-DP
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-08	PSTC-SA5D-09	PSTC-SA5D-10	PSTC-SA5D-11	PSTC-SA5D-12	PSTC-SA5D-13	PSTC-SA5D-14	PSTC-SA5D-14
		Field Sample ID	PSTC-SA5D-08-102512	PSTC-SA5D-09-102512	PSTC-SA5D-10-102512	PSTC-SA5D-11-102512	PSTC-SA5D-12-102512	PSTC-SA5D-13-102512	PSTC-SA5D-14-102512	PSTC-SA5D-14-102512-DP
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA



Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-08	PSTC-SA5D-09	PSTC-SA5D-10	PSTC-SA5D-11	PSTC-SA5D-12	PSTC-SA5D-13	PSTC-SA5D-14	PSTC-SA5D-14
		Field Sample ID	PSTC-SA5D-08-102512	PSTC-SA5D-09-102512	PSTC-SA5D-10-102512	PSTC-SA5D-11-102512	PSTC-SA5D-12-102512	PSTC-SA5D-13-102512	PSTC-SA5D-14-102512	PSTC-SA5D-14-102512-DP
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table C-4

SA5-D Post-Construction Soil Sampling Results

Portage Creek Area Site

Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-08	PSTC-SA5D-09	PSTC-SA5D-10	PSTC-SA5D-11	PSTC-SA5D-12	PSTC-SA5D-13	PSTC-SA5D-14	PSTC-SA5D-14
		Field Sample ID	PSTC-SA5D-08-102512	PSTC-SA5D-09-102512	PSTC-SA5D-10-102512	PSTC-SA5D-11-102512	PSTC-SA5D-12-102512	PSTC-SA5D-13-102512	PSTC-SA5D-14-102512	PSTC-SA5D-14-102512-DP
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

µg/kg = Microgram per kilogram

mg/kg = Milligram per kilogram

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

R = Rejected result

SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post Construction
		Location ID	PSTC-SA5D-15	PSTC-SA5D-16	PSTC-SA5D-16	PSTC-SA5D-17	PSTC-SA5D-18	PSTC-SA5D-19	PSTC-SA5D-COMP-01
		Field Sample ID	PSTC-SA5D-15-102512	PSTC-SA5D-16-102512	PSTC-SA5D-16-102512-DP	PSTC-SA5D-17-102512	PSTC-SA5D-18-102512	PSTC-SA5D-19-102512	PSTC-SA5D-Composite-01
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	5220
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	0.264
6020	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	7.91
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	72
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	1.07 U
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	6.41 U
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	28800
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	10.1
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	4.27 U
6020	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	18.5
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	12600
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	54.7
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	8180
6020	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	552
7471	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	0.121
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	9.31
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	708
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	21.3 U
6020	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	0.124 U
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	213 U
6020	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	0.248 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	14.3
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	101
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ALDRIN	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	0.128 U
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ENDRIN	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post Construction
		Location ID	PSTC-SA5D-15	PSTC-SA5D-16	PSTC-SA5D-16	PSTC-SA5D-17	PSTC-SA5D-18	PSTC-SA5D-19	PSTC-SA5D-COMP-01
		Field Sample ID	PSTC-SA5D-15-102512	PSTC-SA5D-16-102512	PSTC-SA5D-16-102512-DP	PSTC-SA5D-17-102512	PSTC-SA5D-18-102512	PSTC-SA5D-19-102512	PSTC-SA5D-Composite-01
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	NA	NA	0.0638 U
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	NA	NA	0.383 U
8082	AROCLOR 1016	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	AROCLOR 1221	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	AROCLOR 1232	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	AROCLOR 1242	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	AROCLOR 1248	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	AROCLOR 1254	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	AROCLOR 1260	mg/kg	0.146 U	0.12 U	0.118 U	0.12 U	0.146 U	0.127 U	0.128 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	11 U
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	11 U
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	11 U
8151	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	11 U
8151	4-NITROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	43 U
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	430 U
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	11 U
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	11 U
8151	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	130 U
8151	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	2600 U
8151	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	2600 U
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	11 UJ
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	125 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post Construction
		Location ID	PSTC-SA5D-15	PSTC-SA5D-16	PSTC-SA5D-16	PSTC-SA5D-17	PSTC-SA5D-18	PSTC-SA5D-19	PSTC-SA5D-COMP-01
		Field Sample ID	PSTC-SA5D-15-102512	PSTC-SA5D-16-102512	PSTC-SA5D-16-102512-DP	PSTC-SA5D-17-102512	PSTC-SA5D-18-102512	PSTC-SA5D-19-102512	PSTC-SA5D-Composite-01
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	12.5 U
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	12.5 U
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	62.3 U
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	2.49 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	6.23 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post Construction
		Location ID	PSTC-SA5D-15	PSTC-SA5D-16	PSTC-SA5D-16	PSTC-SA5D-17	PSTC-SA5D-18	PSTC-SA5D-19	PSTC-SA5D-COMP-01
		Field Sample ID	PSTC-SA5D-15-102512	PSTC-SA5D-16-102512	PSTC-SA5D-16-102512-DP	PSTC-SA5D-17-102512	PSTC-SA5D-18-102512	PSTC-SA5D-19-102512	PSTC-SA5D-Composite-01
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	7520 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	18800 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	4-AMINOBIHENYL	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U



Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post Construction
		Location ID	PSTC-SA5D-15	PSTC-SA5D-16	PSTC-SA5D-16	PSTC-SA5D-17	PSTC-SA5D-18	PSTC-SA5D-19	PSTC-SA5D-COMP-01
		Field Sample ID	PSTC-SA5D-15-102512	PSTC-SA5D-16-102512	PSTC-SA5D-16-102512-DP	PSTC-SA5D-17-102512	PSTC-SA5D-18-102512	PSTC-SA5D-19-102512	PSTC-SA5D-Composite-01
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	18800 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1880 R
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1880 R
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1880 R
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1880 R
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	4220 U
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	7520 U
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post Construction
		Location ID	PSTC-SA5D-15	PSTC-SA5D-16	PSTC-SA5D-16	PSTC-SA5D-17	PSTC-SA5D-18	PSTC-SA5D-19	PSTC-SA5D-COMP-01
		Field Sample ID	PSTC-SA5D-15-102512	PSTC-SA5D-16-102512	PSTC-SA5D-16-102512-DP	PSTC-SA5D-17-102512	PSTC-SA5D-18-102512	PSTC-SA5D-19-102512	PSTC-SA5D-Composite-01
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	95900 U
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	12700 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	3760 U
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	1880 U
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	1880 R
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	8440 U
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	8440 U

Notes:  
µg/kg = Microgram per kilogram  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R = Rejected result  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-COMP-02	PSTC-SA5D-COMP-03	PSTC-SA5D-COMP-04	PSTC-SA5D-COMP-05
		Field Sample ID	PSTC-SA5D-Composite-02	PSTC-SA5D-Composite-03-102512	PSTC-SA5D-Composite-04-102512	PSTC-SA5D-Composite-05-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
6010B	ALUMINUM	mg/kg	5290	5320	4540	4530
6020	ANTIMONY	mg/kg	0.319	0.46	0.335	0.256 U
6020	ARSENIC	mg/kg	6.98	9.65	8.66	5.39
6010B	BARIUM	mg/kg	80.2	116	90.5	56.2
6010B	BERYLLIUM	mg/kg	1.14 U	1.21 U	1.11 U	1.04 U
6010B	CADMIUM	mg/kg	6.85 U	7.25 U	6.62 U	6.23 U
6010B	CALCIUM	mg/kg	31600	25000	19100	20300
6010B	CHROMIUM	mg/kg	13.5	14.6	13.8	19.1
6010B	COBALT	mg/kg	4.56 U	4.83 U	4.41 U	4.15 U
6020	COPPER	mg/kg	21.8	33.7	23	18.7
6010B	IRON	mg/kg	11400	13600	10000	9410
6010B	LEAD	mg/kg	79.5	141	168	94
6010B	MAGNESIUM	mg/kg	7260	4930	5710	6320
6020	MANGANESE	mg/kg	584	566	367	401
7471	MERCURY	mg/kg	0.165	0.29	0.212	0.253
6010B	NICKEL	mg/kg	8.81	11.5	8.99	7.98
6010B	POTASSIUM	mg/kg	716	805	562	528
6010B	SELENIUM	mg/kg	22.8 U	24.1 U	22.1 U	20.7 U
6020	SILVER	mg/kg	0.135 U	0.168	0.131 U	0.128 U
6010B	SODIUM	mg/kg	228 U	241 U	221 U	207 U
6020	THALLIUM	mg/kg	0.27 U	0.283 U	0.262 U	0.256 U
6010B	VANADIUM	mg/kg	14.3	15.6	12.1	12.2
6010B	ZINC	mg/kg	113	156	161	89.5
8081	4,4'-DDD	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	4,4'-DDE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	4,4'-DDT	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ALDRIN	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ALPHA-BHC	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ALPHA-CHLORDANE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	BETA-BHC	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	CHLORDANE	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8081	DELTA-BHC	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	DIELDRIN	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ENDOSULFAN I	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ENDOSULFAN II	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ENDOSULFAN SULFATE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ENDRIN	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ENDRIN ALDEHYDE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	ENDRIN KETONE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	GAMMA-BHC (LINDANE)	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	GAMMA-CHLORDANE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	HEPTACHLOR	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	HEPTACHLOR EPOXIDE	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	HEXACHLOROBENZENE, PEST	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-COMP-02	PSTC-SA5D-COMP-03	PSTC-SA5D-COMP-04	PSTC-SA5D-COMP-05
		Field Sample ID	PSTC-SA5D-Composite-02	PSTC-SA5D-Composite-03-102512	PSTC-SA5D-Composite-04-102512	PSTC-SA5D-Composite-05-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8081	METHOXYCHLOR	mg/kg	0.0681 U	0.0748 U	0.0672 U	0.0643 U
8081	TOXAPHENE	mg/kg	0.409 U	0.449 U	0.403 U	0.386 U
8082	AROCLOR 1016	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	AROCLOR 1221	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	AROCLOR 1232	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	AROCLOR 1242	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	AROCLOR 1248	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	AROCLOR 1254	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	AROCLOR 1260	mg/kg	0.136 U	0.15 U	0.134 U	0.129 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	11 U	12 U	11 U	11 U
8151	2,4,5-TP (SILVEX)	µg/kg	11 U	12 U	11 U	11 U
8151	2,4-D	µg/kg	11 U	12 U	11 U	11 U
8151	2,4-DB	µg/kg	11 U	12 U	11 U	11 U
8151	4-NITROPHENOL, HERB	µg/kg	45 U	48 U	45 U	42 U
8151	DALAPON	µg/kg	450 U	480 U	450 U	420 U
8151	DICAMBA	µg/kg	11 U	12 U	11 U	11 U
8151	DICHLOROPROP	µg/kg	11 U	12 U	11 U	11 U
8151	DINOSEB	µg/kg	140 U	150 U	140 U	130 U
8151	MCPA	µg/kg	2700 U	2900 U	2700 U	2600 U
8151	MECOPROP	µg/kg	2700 U	2900 U	2700 U	2600 U
8151	PENTACHLOROPHENOL, HERB	µg/kg	11 UJ	12 UJ	11 UJ	11 UJ
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,1-DICHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,1-DICHLOROETHENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2-DICHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,2-DICHLOROPROPANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	2-BUTANONE (MEK)	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	2-HEXANONE	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	ACETONE	µg/kg	131 U	148 U	135 U	125 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-COMP-02	PSTC-SA5D-COMP-03	PSTC-SA5D-COMP-04	PSTC-SA5D-COMP-05
		Field Sample ID	PSTC-SA5D-Composite-02	PSTC-SA5D-Composite-03-102512	PSTC-SA5D-Composite-04-102512	PSTC-SA5D-Composite-05-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8260	ACROLEIN	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	ACRYLONITRILE	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	ALLYL CHLORIDE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	BENZENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	BROMODICHLOROMETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	BROMOFORM	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	13.1 U	14.8 U	13.5 U	12.5 U
8260	CARBON DISULFIDE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CARBON TETRACHLORIDE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CHLOROBENZENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CHLORODIBROMOMETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CHLOROFORM	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CHLOROMETHANE	µg/kg	13.1 U	14.8 U	13.5 U	12.5 U
8260	CHLOROPRENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	DIBROMOMETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	ETHYL METHACRYLATE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	ETHYLBENZENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	IODOMETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	M,P-XYLENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	METHACRYLONITRILE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	METHYL METHACRYLATE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	METHYLENE CHLORIDE	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	O-XYLENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	PENTACHLOROETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	PROPIONITRILE	µg/kg	65.6 U	73.9 U	67.6 U	62.4 U
8260	STYRENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TETRACHLOROETHENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TOLUENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TRICHLOROETHENE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	VINYL ACETATE	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8260	VINYL CHLORIDE	µg/kg	2.63 U	2.95 U	2.7 U	2.5 U
8260	XYLENE (TOTAL)	µg/kg	6.56 U	7.39 U	6.76 U	6.24 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-COMP-02	PSTC-SA5D-COMP-03	PSTC-SA5D-COMP-04	PSTC-SA5D-COMP-05
		Field Sample ID	PSTC-SA5D-Composite-02	PSTC-SA5D-Composite-03-102512	PSTC-SA5D-Composite-04-102512	PSTC-SA5D-Composite-05-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	1,3,5-TRINITROBENZENE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	1,3-DINITROBENZENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	1,4-NAPHTHOQUINONE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	1-NAPHTHYLAMINE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2,4-DICHLOROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2,4-DIMETHYLPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2,4-DINITROPHENOL	µg/kg	8080 U	8780 U	7920 U	7620 U
8270	2,4-DINITROTOLUENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	2,6-DICHLOROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2,6-DINITROTOLUENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	2-CHLORONAPHTHALENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	2-CHLOROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	2-METHYLPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2-NAPHTHYLAMINE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	2-NITROANILINE	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2-NITROPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	2-PICOLINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	3&4-METHYLPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	20200 U	22000 U	19800 U	19100 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	3-METHYLCHOLANTHRENE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	3-NITROANILINE	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	4-AMINOBIPHENYL	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	4-CHLOROANILINE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	4-NITROANILINE	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	4-NITROPHENOL, SVOC	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	ACENAPHTHENE	µg/kg	2020 U	2200 U	1980 U	1910 U



Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-COMP-02	PSTC-SA5D-COMP-03	PSTC-SA5D-COMP-04	PSTC-SA5D-COMP-05
		Field Sample ID	PSTC-SA5D-Composite-02	PSTC-SA5D-Composite-03-102512	PSTC-SA5D-Composite-04-102512	PSTC-SA5D-Composite-05-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	ACENAPHTHYLENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	ACETOPHENONE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	ANILINE	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	ANTHRACENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BENZIDINE	µg/kg	20200 U	22000 U	19800 U	19100 U
8270	BENZO(A)ANTHRACENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BENZO[A]PYRENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BENZO[B]FLUORANTHENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BENZO[K]FLUORANTHENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BENZYL ALCOHOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	2020 R	2200 R	1980 R	1910 R
8270	BUTYL BENZYL PHTHALATE	µg/kg	2020 R	2200 R	1980 R	1910 R
8270	CARBAZOLE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	CHLOROBENZILATE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	CHRYSENE	µg/kg	2020 U	2200 U	1980 U	1910
8270	DIALLATE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	DIBENZOFURAN	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	DIETHYL PHTHALATE	µg/kg	2020 R	2200 R	1980 R	1910 R
8270	DIMETHOATE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	DIMETHYL PHTHALATE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	2020 R	2200 R	1980 R	1910 R
8270	DI-N-OCTYL PHTHALATE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	DIPHENYLAMINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	DISULFOTON	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	ETHYL METHANESULFONATE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	FAMPHUR	µg/kg	4540 U	4930 U	4450 U	4280 U
8270	FLUORANTHENE	µg/kg	2020 U	2200 U	1980 U	1910
8270	FLUORENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	8080 U	8780 U	7920 U	7620 U
8270	HEXACHLOROETHANE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	HEXACHLOROPROPENE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	ISODRIN	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	ISOPHORONE	µg/kg	2020 U	2200 U	1980 U	1910 U

Table C-4  
SA5-D Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5D	Slope Area 5D	Slope Area 5D	Slope Area 5D
		Location Type	Post Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5D-COMP-02	PSTC-SA5D-COMP-03	PSTC-SA5D-COMP-04	PSTC-SA5D-COMP-05
		Field Sample ID	PSTC-SA5D-Composite-02	PSTC-SA5D-Composite-03-102512	PSTC-SA5D-Composite-04-102512	PSTC-SA5D-Composite-05-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	ISOSAFROLE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	KEPONE, SVOC	µg/kg	103000 U	112000 U	101000 U	97200 U
8270	METHAPYRILENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	METHYL METHANESULFONATE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	METHYL PARATHION	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	NAPHTHALENE, SVOC	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	NITROBENZENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	N-NITROSODIETHYLAMINE	µg/kg	13600 U	14800 U	13300 U	12800 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	N-NITROSOMORPHOLINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	N-NITROSOPIPERIDINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	N-NITROSOPYRROLIDINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	O-TOLUIDINE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PARATHION	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PENTACHLOROBENZENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PENTACHLORONITROBENZENE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	PHENACETIN	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PHENANTHRENE	µg/kg	2020 U	2200 U	1980 U	1910 U
8270	PHENOL	µg/kg	4040 U	4390 U	3960 U	3810 U
8270	PHORATE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PRONAMIDE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	PYRENE	µg/kg	2020 U	2200 U	1980 U	1910
8270	PYRIDINE	µg/kg	2020 R	2200 R	1980 R	1910 R
8270	SAFROLE	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	SULFOTEPP	µg/kg	9070 U	9860 U	8890 U	8560 U
8270	THIONAZIN	µg/kg	9070 U	9860 U	8890 U	8560 U

Notes:  
µg/kg = Microgram per kilogram  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R = Rejected result  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

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**ATTACHMENT C-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 1

**Date:** 6/28/12

**Direction:** North

**Photographer:** Michael Browning

**Subject:** Workers building a swamp mat platform in order to drive sheet pilings



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 2

**Date:** 8/7/12

**Direction:** Southwest

**Photographer:** Michael Browning

**Subject:** Surface water bypass pumps and intake pipes located at the southern end



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 3

**Direction:** South

**Subject:** Bypass pump discharge and groundwater extraction pipes laid along the west bank

**Date:** 8/7/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 4

**Direction:** South

**Subject:** Excavating contaminated sediment

**Date:** 8/20/12

**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 5  
**Direction:** East  
**Subject:** Excavating contaminated sediment

**Date:** 8/20/12  
**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 6  
**Direction:** North  
**Subject:** After partial excavation

**Date:** 8/20/12  
**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 7

**Direction:** North

**Subject:** Excavation of contaminated sediments

**Date:** 8/20/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 8

**Direction:** North

**Subject:** Temporary removal of pedestrian bridge

**Date:** 8/21/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 9

**Direction:** Northeast

**Subject:** Excavation of contaminated sediment

**Date:** 8/21/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 10

**Direction:** South

**Subject:** Bypass system discharge pipes extending across Axtell Creek

**Date:** 8/21/12

**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – SA5-D

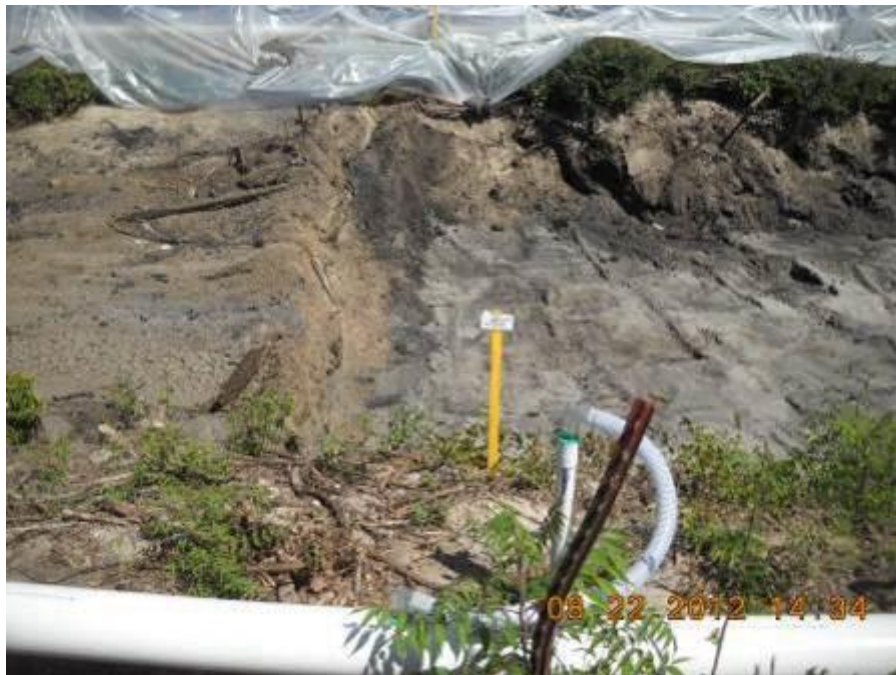
**Photograph No.:** 11

**Date:** 8/22/12

**Direction:** North

**Photographer:** Michael Browning

**Subject:** Bypass pump intake pipes (foreground) and excavated grids (background)



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 12

**Date:** 8/22/12

**Direction:** Down

**Photographer:** Michael Browning

**Subject:** Partially excavated grid (right) and unexcavated grid (left)



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 13

**Direction:** West

**Subject:** Placing rip rap on the bottom of creek bed as part of the restoration process

**Date:** 8/28/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 14

**Direction:** South

**Subject:** Leveling rip rap along the bottom of creek bed

**Date:** 8/29/12

**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 15

**Direction:** Northeast

**Subject:** Excavation of contaminated sediment

**Date:** 8/29/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 16

**Direction:** North

**Subject:** Partially restored portion of creekbed

**Date:** 8/30/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 17  
**Direction:** North  
**Subject:** Placement of sand/gravel mix

**Date:** 9/5/12  
**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 18  
**Direction:** North  
**Subject:** Excavation of contaminated sediments

**Date:** 9/6/12  
**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 19

**Direction:** Northeast

**Subject:** Excavation of contaminated sediments

**Date:** 9/6/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 20

**Direction:** East

**Subject:** Loading sediment into an off-road dump truck

**Date:** 9/6/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 21

**Direction:** Down

**Subject:** Geotextile fabric laid along the bottom of creek bed

**Date:** 9/11/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 22

**Direction:** Northeast

**Subject:** Restored grids

**Date:** 9/11/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 23  
**Direction:** South  
**Subject:** Re-filling sipper well hole on east bank

**Date:** 9/13/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 24  
**Direction:** Southeast  
**Subject:** Restoration activities

**Date:** 9/13/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 25  
**Direction:** Northeast  
**Subject:** Restoration activities

**Date:** 9/20/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D  
**Photograph No.:** 26  
**Direction:** South  
**Subject:** Restoration activities

**Date:** 9/20/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 27

**Date:** 10/22/12

**Direction:** North

**Photographer:** Michael Browning

**Subject:** Removing temporary steel bridge across Portage Creek



**Site:** Portage Creek Area Site – SA5-D

**Photograph No.:** 28

**Date:** 10/29/12

**Direction:** East

**Photographer:** Michael Browning

**Subject:** Removing fence along eastern perimeter

## **APPENDIX D**

### **AXTELL CREEK REPORT PORTAGE CREEK AREA SITE**



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- D-3 Confirmation and Core Sediment Sampling Results
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## **LIST OF ATTACHMENTS**

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- D-A Photographic Documentation

## **1. AXTELL CREEK BACKGROUND**

### **1.1 DESCRIPTION**

Axtell Creek is located south of downtown Kalamazoo, Michigan, and extends east from the intersection of East Crosstown Parkway and John Street to the confluence point of Axtell Creek and Portage Creek. The approximate geographic coordinates are latitude 42.28128° North and longitude -85.57921° West (**Figure D-1**). The excavation area was divided into five grids, and encompassed approximately 10,100 ft<sup>2</sup>. Axtell Creek is surrounded by privately-owned and City-owned properties. Axtell Creek flows from west to east (**Figure D-2**).

### **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from two property owners, providing access to the excavation area, from the intersection of East Crosstown Parkway and John Street to the confluence point of Axtell Creek and Portage Creek. The property owners granted EPA and its contractors permission to conduct contaminated sediment excavation operations and to restore properties once excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

### **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation (Note: The Axtell Creek Technical Memorandum was combined into one document with the Slope Area 5-C [SA5-C] and Slope Area 5-D [SA5-D] excavation areas)
- Collection and PCB analysis of sediment core samples from Grids 1 and 3, on August 31, 2011, and from Grids 2 - 5, on July 25, 2012, to confirm the excavation depths within each excavation grid, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal assessment to document existing Site conditions

- Installation of environmental controls to minimize impact of the excavation activities on original Site features
- Clearing and grubbing to allow physical access to excavation area
- Collection of pre-construction soil samples from support areas
- Construction of two sheet pile cofferdams
- Installation and operation of a by-pass pumping system and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of the stabilized sediments
- Collection, analysis, and data validation of confirmation and core sediment samples obtained from excavation grids
- Removal of all environmental controls, cofferdams, and pumping systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from support areas
- Development of an area-specific restoration plan in coordination with property owners

After the completion of initial Site set-up activities (i.e., installation of by-pass pumping, construction of upstream and downstream cofferdams, installation of environmental controls, and installation of groundwater diversion system), ERRS excavated TSCA and non-TSCA PCB-contaminated sediments from Grids 1 - 5, beginning in Grid 1 and continuing from west to east through Grid 5. Additional information on excavation activities is provided in Section 3.

A total of five pre-construction soil samples, eighteen in-stream sediment core samples from thirteen different locations; fifteen confirmation sediment samples, and five post-construction soil samples were collected prior to, during, and after the excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 - 4.3.

Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information is provided for these activities in Section 5.2.

## **2. PRE-REMOVAL ACTIVITIES**

This section discusses the pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment D-A** provides photographic documentation of selected pre-removal activities.

### **2.1 PRE-REMOVAL SAMPLING ACTIVITIES**

ERRS and START performed pre-excavation sediment sampling in August 2011 and July 2012. On August 31, 2011, one sediment core was collected from each of Grids 1 and 3. On July 25, 2012, three sediment cores were collected from Grid 2, two sediment cores each from Grids 3 and 5, and four sediment cores from Grid 4. These cores were processed and sampled in approximately 12-inch intervals. All analytical data results for the pre-removal sediment samples are presented in **Table D-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses to be conducted. The intent of this sampling was to confirm the vertical extent of contamination, to determine if the contaminant levels were below TSCA landfill disposal parameters, and to finalize the sediment excavation depths within each grid. The samples collected on August 31, 2011, were shipped to TestAmerica Laboratories of Dayton, Ohio. The samples collected on July 25, 2012, were shipped to ALS Global Laboratory of Holland, Michigan. All samples were analyzed for PCBs. The analytical results verified that sediment contaminant levels in portions of Grids 1 and 3 and in all of Grid 5 were below TSCA disposal limits and could be excavated as non-TSCA sediment. However, due to an earlier sampling event, the sediment in portions of Grids 1 and 3 and in all of Grids 2 and 4 were excavated as TSCA sediment.

### **2.2 PRE-REMOVAL FEATURES ASSESSMENT**

START recorded photographic and video documentation of pre-removal features along the northern and southern banks of Axtell Creek, from the outfall located near the intersection of East Crosstown Parkway and John Street to the confluence point of Axtell Creek and Portage Creek. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal assessment of in-place

constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment Removal Areas SA5-Axtell Creek, SA5-D and SA5-C” (Fleis and Vandenbrink Engineering Inc., May 2012), available upon request. This assessment was used to determine if any corrective actions or repairs were required once excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover**

In order to allow for grid excavation and load-out activities, a subcontractor cleared trees and other vegetative cover from the northern and southern banks. Only portions of the northern bank were cleared to allow for the placement of the groundwater diversion pipes. The southern bank of Axtell Creek, extending from east of the outfall located near the intersection of East Crosstown Parkway and John Street to the confluence point of Axtell Creek and Portage Creek, was cleared to allow for grid excavation and load-out activities. An existing paved parking area was used as the staging area for the by-pass pumping system and equipment access point along the southern bank of the creek. To maintain soil stability, all clearing and grubbing activities were completed in a manner that protected the root masses of trees in the overall work area.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-excavation topographic survey of the excavation area on June 27, 2012. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for determining the contaminated sediment excavation surface area within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during the excavation activities. The RTK-GPS equipment ensured that the operators were excavating the sediment and backfilling each grid to the targeted lateral and vertical limits of each grid.



### **2.3.3 Excavation Area Isolation and Dewatering**

A subcontractor constructed two sheet pile cofferdams in Axtell Creek; one in the middle of Grid 1 and another at the eastern end of Grid 5 (**Figure D-2**). Due to the presence of standing water in the creek channel and resulting difficulty of meeting the performance standard during initial sediment excavation activities, a subcontractor further dried out the creek channel by installing a series of groundwater extraction wells along the northern and southern banks of the excavation grids. The setup consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5-foot centers to an approximate depth of 10ft below the creek bottom. The sipper wells were connected to a 6-inch-diameter PVC manifold pipe via flexible tubing. The manifold pipe was connected to 6-inch-diameter vacuum pumps that discharged groundwater past the downstream isolation cofferdam. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

### **2.3.4 By-Pass Pumping**

The by-pass pumping system typically consisted of two 6-inch-diameter by-pass pumps on the southern bank connected to a 12-inch-diameter discharge line on the southern bank. However, a flooding event on July 18-19 required a third 6-inch diameter by-pass pump to be used temporarily. The system captured creek water upstream of the western cofferdam and pumped it to a rock discharge pad consisting of wire gabion baskets filled with large stones located just south of East Vine Street. The gabion baskets dissipated the water flow velocity and thus minimized erosion of the creek channel bottom. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed. The by-pass pumping system discharged water downstream of East Vine Street in order to divert the Axtell Creek water past the SA5-D and SA5-C excavation areas located downstream of the confluence point of Axtell Creek and Portage Creek.

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize impact of excavation activities. Many of the environmental controls are specified in the SESC Plan. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.
- Dust Control - A water truck applied water for dust control within the support area, as necessary.
- Fuel Station - A 300-gallon temporary fuel tank with secondary containment was used to power the by-pass pumps. Fire extinguishers and an emergency spill control kit were placed near the fuel tank. The spill kit included drums, oil dry, adsorbent pads, and a boom to address small spills.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along both sides of the creek to stabilize the sediments and to prevent erosion into the creek channel.
- Rock Discharge Pad - A rock discharge pad was installed, downstream of the isolated area where the discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stones that dissipated the water's discharge velocity and reduced erosion of the creek bed.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 65ft upstream (because Axtell Creek is channelized via a culvert upstream of this location), 200ft and 300ft downstream of the sand bag dam installed just south of East Vine Street. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.<sup>1</sup>

### 3. EXCAVATION/DISPOSAL ACTIVITIES

The excavation of contaminated sediments commenced in Grid 1 and continued from west to east through Grid 5. **Attachment D-A** provides photographic documentation of the excavation activities. The table below lists excavation details, including targeted excavation depths.

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<sup>1</sup> Flooding on July 19, 2012 damaged two of the turbidity meters. The remaining turbidity meter was placed at the nearest downstream location and upstream turbidity was measured with a hand-held device for several days until replacement turbidity meters could be obtained.

## AXTELL CREEK EXCAVATION DETAILS

Grid	Target Excavation Depth (inches bss)	Final Excavation Depth (inches bss)	Surface Area of Excavated Sediment (ft <sup>2</sup> )	Volume of Excavated Sediment (yd <sup>3</sup> )
1	24	60	2316	429
2	30	66	2512	512
3	24	60	2086	386
4	30	66	1818	370
5	24	36	1072	119

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = Cubic yard

In order to access contaminated sediments, a long reach excavator was positioned along the southern bank of the excavation area. If sediments were sufficiently dry, the long reach excavator loaded excavated material directly into ORDTs that hauled the sediment directly to the John Street staging pad, which was located immediately south of the creek. If the sediments were too wet for direct shipment, the excavated material was loaded into a 20 yd<sup>3</sup> mixing box, where a corn cob-based absorbent material was mixed in by a second excavator, solidifying the sediment prior to its loading into ORDTs. ORDTs emptied their loads directly onto the staging pad, which was designed to contain contaminated sediments along with any residual water or run-off from precipitation. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## 4. SAMPLING/MONITORING ACTIVITIES AND RESULTS

### 4.1 PRE-CONSTRUCTION SOIL SAMPLING

Prior to commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils from the northern and southern banks of the excavation area. The support

area was divided into 2,500 ft<sup>2</sup> sample grids for PCB analysis and 10,000 ft<sup>2</sup> sample areas for analysis of TCL VOCs and SVOCs, TCL pesticides and herbicides, TAL metals, and PCBs. All analytical data results for the pre-construction soil samples are presented in **Table D-2**. Analytical data validation reports are available upon request.

Four 2,500 ft<sup>2</sup> soil samples and one 10,000 ft<sup>2</sup> composite soil sample were collected from Axtell Creek. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500 ft<sup>2</sup> grid. The 10,000 ft<sup>2</sup> composite sample was generated by combining and homogenizing the residential material from the four 2,500 ft<sup>2</sup> composite samples.

## **4.2 CONFIRMATION AND CORE SAMPLING**

During and after excavation of the contaminated sediments, START and EPA collected confirmation and core samples. All analytical data results for confirmation sediment samples are presented in **Table D-3**. Analytical data validation reports are available upon request.

After initial excavation of Grids 1 - 5, five confirmation sediment samples were collected from the excavation area. Based on PCB analytical results of these five samples, which ranged from 4.15 to 27.9 mg/kg of PCBs, additional excavation was conducted in each grid. The follow-up PCB analytical results for Grids 1 - 5 ranged from 3.93 to 35.8 mg/kg.

After additional excavation in each grid, five additional confirmation sediment samples were collected from Grids 1 - 5. The confirmation sediment sample results were evaluated against the performance standard designated for stream sediments of less than or equal to 10 mg/kg of PCBs, with the performance standard goal of 1 mg/kg. The analytical results for all five confirmation sediment samples were below the performance standard of less than or equal to 10 mg/kg of PCBs and were below the performance standard goal of 1 mg/kg in four of the five confirmation sediment samples. PCB analytical results in the confirmation sediment samples ranged from non-detect in Grid 1 to 6.97 mg/kg in Grid 3.

## **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as the pre-construction samples, and used the same grid areas and sample node locations. All analytical data results for the post-

construction soil samples are presented in **Table D-4**. Analytical data validation reports are available upon request.

Four individual 2,500-ft<sup>2</sup> grids and one 10,000-ft<sup>2</sup> area were sampled. The 2,500-ft<sup>2</sup> grid soil samples were analyzed for PCBs and were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. The composited 10,000-ft<sup>2</sup> sample was analyzed for total TCL VOCs, total TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals, and PCBs. To ensure that work activities did not result in contaminating support areas, results of the post-construction samples were compared to the results of pre-construction samples.

#### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-Site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the excavation area during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure D-3** shows the DataRAM monitoring locations.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

### **5. POST-REMOVAL ACTIVITIES**

#### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Area SA5-Axtell Creek, SA5-D and SA5-C” (Fleis and Vandenbrink Engineering Inc., October 2012), available upon request.

## 5.2 RESTORATION

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment D-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of the excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing Site infrastructure and equipment required to conduct sediment excavation operations and making any necessary repairs to the property and/or constructed features resulting from sediment excavation operations. The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until vegetation was re-established (see Section 5.2.2).

### 5.2.1 Bank Stabilization and Creek Channel Backfilling

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the northern and southern banks. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inches) were placed every three feet on the water side and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.



Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from the excavation activities. All corrective actions necessary to repair any damaged features resulting from the sediment excavation operations were completed. EPA coordinated with the appropriate stakeholders to verify their acceptance of the Site repairs and conducted final Site walk-through inspections with property owners.

### **5.2.2 Re-vegetation**

An area-specific restoration plan (available upon request) was completed in coordination with the property owners and in accordance with the overall Site Restoration Plan. Once the impacted areas were re-graded, the area-specific restoration plan was implemented by a subcontractor. The area-specific restoration plan included the planting of trees, shrubs, and vegetative plugs throughout the impacted areas and the application of a grass seed/fertilizer mix, with straw cover, to prevent erosion within impacted areas.

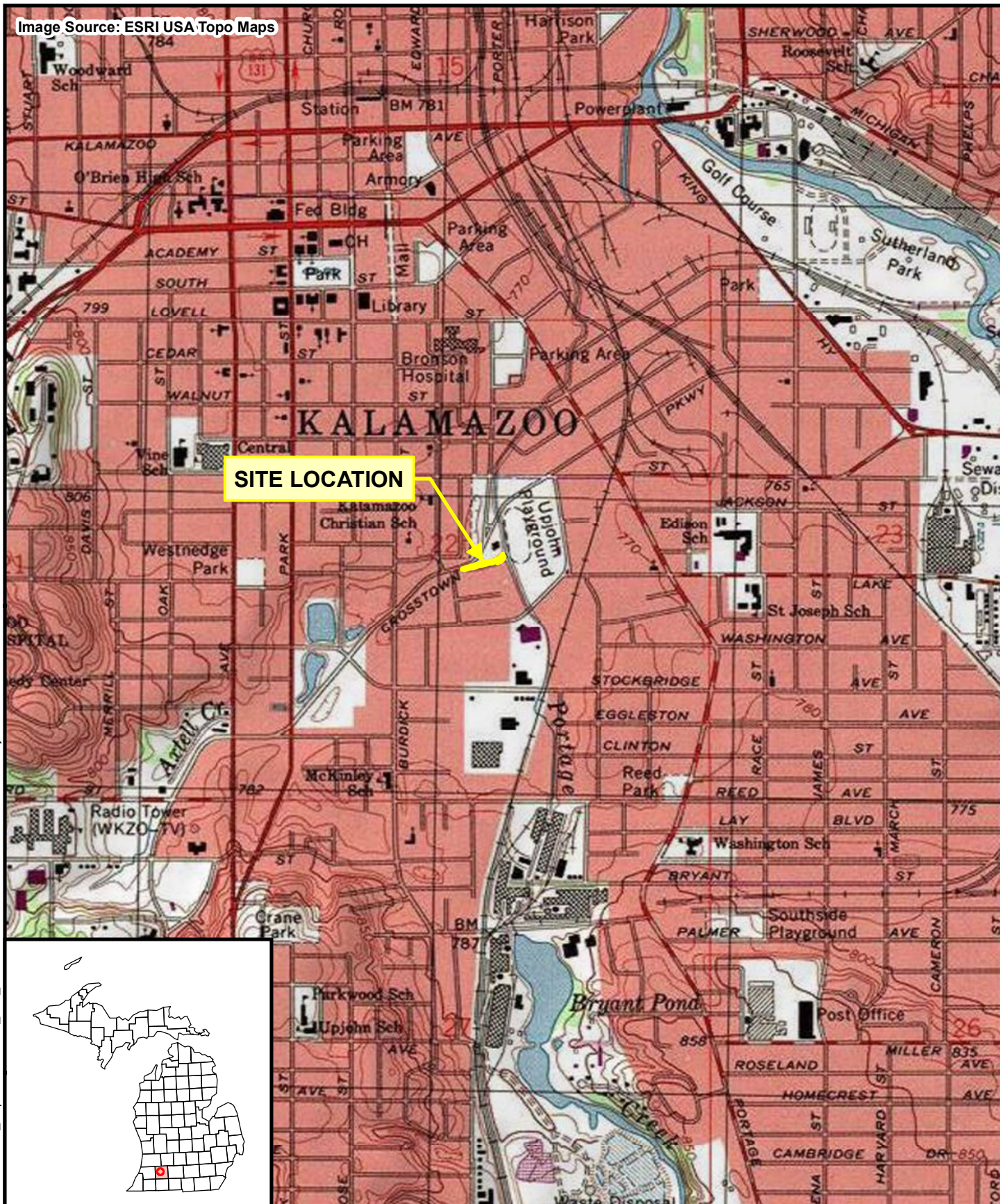
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## FIGURES

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Image Source: ESRI USA Topo Maps



# Legend

Site Boundary

0 2,000 Feet



Prepared For:  
U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
WESTON  
SOLUTIONS, INC

360 East Maple Road  
Suite R  
Troy, Michigan 48083

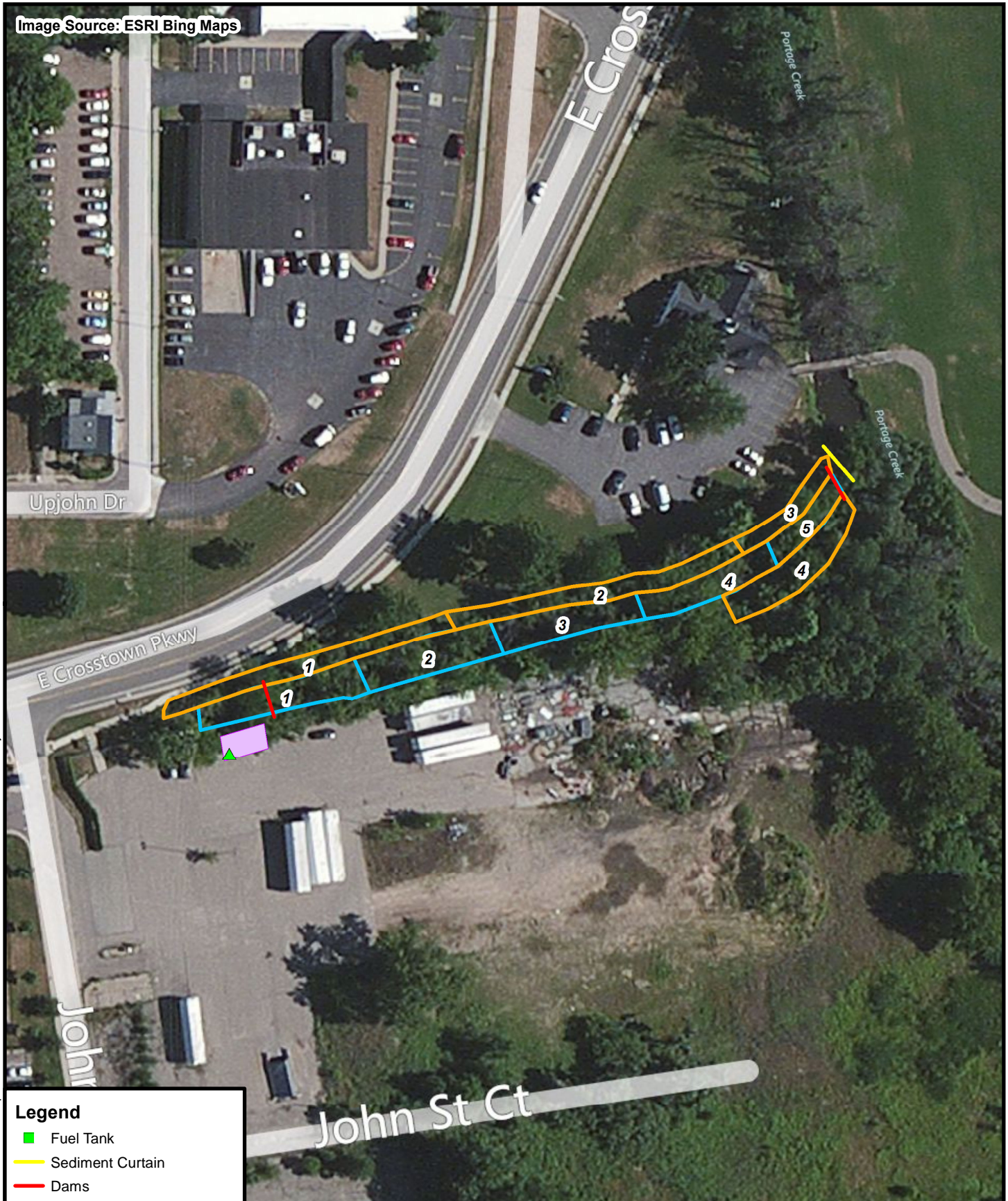
## Figure D-1

Site Location Map

Portage Creek Area Axtell Creek  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- Fuel Tank
- Sediment Curtain
- Dams
- Pump
- Construction Grids
- Removal Grids

0 125 Feet



Prepared For:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
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**Figure D-2**  
Site Features Map  
Portage Creek Area Axtell Creek  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- DataRAM Monitoring Locations
- Fuel Tank
- Sediment Curtain
- Dams
- Pump
- Construction Grids
- Removal Grids

0 175 Feet



Prepared For:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



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**Figure D-3**  
DataRAM Location Monitoring Map  
Portage Creek Area Axtell Creek  
Kalamazoo, Kalamazoo County,  
Michigan

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## TABLES

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**Table D-1**  
**Axtell Creek Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-AXC-1-1	PRSD-AXC-1-1	PRSD-AXC-3-1	PRSD-AXC-3-1
		Field Sample ID	PRSD-AXC-1-1 (0-12")	PRSD-AXC-1-1 (12-14")	PRSD-AXC-3-1 (0-12")	PRSD-AXC-3-1 (12-20")
		Sampling Date	8/31/2011	8/31/2011	8/31/2011	8/31/2011
		Depth Interval (inches bss)	0- 12	12- 14	0- 12	12- 20
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.828 U	0.857 U	0.165 U	1.08 U
8082	AROCLOR 1221	mg/kg	0.828 U	0.857 U	0.165 U	1.08 U
8082	AROCLOR 1232	mg/kg	0.828 U	0.857 U	0.165 U	1.08 U
8082	AROCLOR 1242	mg/kg	1.07	0.857 U	0.732	13.3
8082	AROCLOR 1248	mg/kg	0.828 U	0.857 U	0.165 U	1.08 U
8082	AROCLOR 1254	mg/kg	0.828 U	0.857 U	0.165 U	1.08 U
8082	AROCLOR 1260	mg/kg	0.828 U	0.857 U	0.165 U	1.08 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.07	0 U	0.732	13.3

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	SD-AXC-2A	SD-AXC-2B	SD-AXC-2C	SD-AXC-3A
		Field Sample ID	SD-AXC-2A-072512 (0"-12")	SD-AXC-2B-072512 (0"-12")	SD-AXC-2C-072512 (0"-12")	SD-AXC-3A-072512 (0"-12")
		Sampling Date	7/25/2012	7/25/2012	7/25/2012	7/25/2012
		Depth Interval (inches bss)	0- 12	0- 12	0- 12	0- 12
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.1 U	0.12 U	0.072 U	0.088 U
8082	AROCLOR 1221	mg/kg	0.1 U	0.12 U	0.072 U	0.088 U
8082	AROCLOR 1232	mg/kg	0.1 U	0.12 U	0.072 U	0.088 U
8082	AROCLOR 1242	mg/kg	2	4.6	13	9.9
8082	AROCLOR 1248	mg/kg	0.1 U	0.12 U	0.072 U	0.088 U
8082	AROCLOR 1254	mg/kg	0.33	0.69	1.7	3.8
8082	AROCLOR 1260	mg/kg	0.1 U	0.12 U	0.072 U	0.088 U
8082	Total PCBs (Sum of Detections)	mg/kg	2.33	5.29	14.7	13.7

**Table D-1**  
**Axtell Creek Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	SD-AXC-3A	SD-AXC-3B	SD-AXC-4A	SD-AXC-4B
		Field Sample ID	SD-AXC-3A-072512 (12"-16")	SD-AXC-3B-072512 (0"-13")	SD-AXC-4A-072512 (0"-12")	SD-AXC-4B-072512 (0"-12")
		Sampling Date	7/25/2012	7/25/2012	7/25/2012	7/25/2012
		Depth Interval (inches bss)	12- 16	0- 13	0- 12	0- 12
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.1 U	0.068 U	0.063 U	0.047 U
8082	AROCLOR 1221	mg/kg	0.1 U	0.068 U	0.063 U	0.047 U
8082	AROCLOR 1232	mg/kg	0.1 U	0.068 U	0.063 U	0.047 U
8082	AROCLOR 1242	mg/kg	20	2.9	16	0.079
8082	AROCLOR 1248	mg/kg	0.1 U	0.068 U	0.063 U	0.047 U
8082	AROCLOR 1254	mg/kg	3.1	0.41	2	0.047 U
8082	AROCLOR 1260	mg/kg	0.1 U	0.068 U	0.063 U	0.047 U
8082	Total PCBs (Sum of Detections)	mg/kg	23.1	3.31	18	0.079

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	SD-AXC-4B	SD-AXC-4C	SD-AXC-4D	SD-AXC-4D
		Field Sample ID	SD-AXC-4B-072512 (12"-15")	SD-AXC-4C-072512 (0"-12")	SD-AXC-4D-072512 (0"-12")	SD-AXC-4D-072512 (12"-15")
		Sampling Date	7/25/2012	7/25/2012	7/25/2012	7/25/2012
		Depth Interval (inches bss)	12- 15	0- 12	0- 12	12- 15
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.093 U	0.048 U	0.055 U	0.043 U
8082	AROCLOR 1221	mg/kg	0.093 U	0.048 U	0.055 U	0.043 U
8082	AROCLOR 1232	mg/kg	0.093 U	0.048 U	0.055 U	0.043 U
8082	AROCLOR 1242	mg/kg	16	0.087	7	0.049
8082	AROCLOR 1248	mg/kg	0.093 U	0.048 U	0.055 U	0.043 U
8082	AROCLOR 1254	mg/kg	2.2	0.048 U	1.1	0.043 U
8082	AROCLOR 1260	mg/kg	0.093 U	0.048 U	0.055 U	0.043 U
8082	Total PCBs (Sum of Detections)	mg/kg	18.2	0.087	8.1	0.049

**Table D-1**  
**Axtell Creek Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Axtell Creek	Axtell Creek
		Location Type	Pre-Removal	Pre-Removal
		Location ID	SD-AXC-5A	SD-AXC-5B
		Field Sample ID	SD-AXC-5A-072512 (0"-13")	SD-AXC-5B-072512 (0"-8")
		Sampling Date	7/25/2012	7/25/2012
		Depth Interval (inches bss)	0- 13	0- 8
Analytical Method	Chemical Name	Unit		
8082	AROCLOR 1016	mg/kg	0.065 U	0.049 U
8082	AROCLOR 1221	mg/kg	0.065 U	0.049 U
8082	AROCLOR 1232	mg/kg	0.065 U	0.049 U
8082	AROCLOR 1242	mg/kg	7.7	0.2
8082	AROCLOR 1248	mg/kg	0.065 U	0.049 U
8082	AROCLOR 1254	mg/kg	1.2	0.049 U
8082	AROCLOR 1260	mg/kg	0.065 U	0.049 U
8082	Total PCBs (Sum of Detections)	mg/kg	8.9	0.2

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

Table D-2  
Axtell Creek Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-Axtell-01	PREC-Axtell-02	PREC-Axtell-03	PREC-Axtell-04	PREC-Axtell-Comp
		Field Sample ID	PREC-Axtell-01-061912	PREC-Axtell-02-061912	PREC-Axtell-03-061912	PREC-Axtell-04-061912	PREC-Axtell-Composite-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	8040
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	0.461
6020	ARSENIC	mg/kg	NA	NA	NA	NA	9.03
6010B	BARIUM	mg/kg	NA	NA	NA	NA	110
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	0.845 U
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	5.06 U
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	8370
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	19.5
6010B	COBALT	mg/kg	NA	NA	NA	NA	5.17
6020	COPPER	mg/kg	NA	NA	NA	NA	29.6
6010B	IRON	mg/kg	NA	NA	NA	NA	13500
6010B	LEAD	mg/kg	NA	NA	NA	NA	125
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	3210
6020	MANGANESE	mg/kg	NA	NA	NA	NA	616
7471	MERCURY	mg/kg	NA	NA	NA	NA	0.0175 J-
6010B	NICKEL	mg/kg	NA	NA	NA	NA	11.7
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	929
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	16.8 U
6020	SILVER	mg/kg	NA	NA	NA	NA	0.264
6010B	SODIUM	mg/kg	NA	NA	NA	NA	168 U
6020	THALLIUM	mg/kg	NA	NA	NA	NA	0.203 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	20.8
6010B	ZINC	mg/kg	NA	NA	NA	NA	124
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	0.264 U
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	0.272
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	0.329
8081	ALDRIN	mg/kg	NA	NA	NA	NA	0.264 U
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	0.264 U
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	0.264 U
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	0.264 U
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	0.527 U
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	0.264 U
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	0.264 U
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	0.264 U
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	0.264 U
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	0.264 U
8081	ENDRIN	mg/kg	NA	NA	NA	NA	0.264 U
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	0.264 U
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	0.264 U
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	0.264 U
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	0.264 U
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	0.264 U
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	0.264 U
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	0.264 U
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	0.264 U

Table D-2  
Axtell Creek Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-Axtell-01	PREC-Axtell-02	PREC-Axtell-03	PREC-Axtell-04	PREC-Axtell-Comp
		Field Sample ID	PREC-Axtell-01-061912	PREC-Axtell-02-061912	PREC-Axtell-03-061912	PREC-Axtell-04-061912	PREC-Axtell-Composite-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	1.58 U
8082	AROCLOR 1016	mg/kg	0.105 U	0.11 U	0.105 U	0.103 U	0.105 U
8082	AROCLOR 1221	mg/kg	0.105 U	0.11 U	0.105 U	0.103 U	0.105 U
8082	AROCLOR 1232	mg/kg	0.105 U	0.11 U	0.105 U	0.103 U	0.105 U
8082	AROCLOR 1242	mg/kg	0.105 U	0.11 U	0.105 U	0.103 U	0.105 U
8082	AROCLOR 1248	mg/kg	0.105 U	0.11 U	0.105 U	0.103 U	0.105 U
8082	AROCLOR 1254	mg/kg	0.131	0.11 U	0.187	0.138	0.546
8082	AROCLOR 1260	mg/kg	0.105 U	0.11 U	0.105 U	0.103 U	0.105 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.131	0 U	0.187	0.138	0.546
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	21 U
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	21 U
8151	2,4-D	µg/kg	NA	NA	NA	NA	85 U
8151	DINOSEB	µg/kg	NA	NA	NA	NA	13 U
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	11 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	5.12 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.12 U
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	51.2 U
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	51.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	51.2 U
8260	ACETONE	µg/kg	NA	NA	NA	NA	102 U
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	51.2 U
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	51.2 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	5.12 U
8260	BENZENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	5.12 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	10.2 U
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	5.12 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	5.12 U
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	5.12 U



Table D-2  
Axtell Creek Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-Axtell-01	PREC-Axtell-02	PREC-Axtell-03	PREC-Axtell-04	PREC-Axtell-Comp
		Field Sample ID	PREC-Axtell-01-061912	PREC-Axtell-02-061912	PREC-Axtell-03-061912	PREC-Axtell-04-061912	PREC-Axtell-Composite-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	5.12 U
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	10.2 U
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	5.12 U
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	5.12 U
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	5.12 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	5.12 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	51.2 U
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	51.2 U
8260	STYRENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TOLUENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	5.12 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	5.12 U
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	5.12 U
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	2.05 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	5.12 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	3480 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	5220 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	775 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	3480 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	5220 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	5220 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	1550 U

Table D-2  
Axtell Creek Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-Axtell-01	PREC-Axtell-02	PREC-Axtell-03	PREC-Axtell-04	PREC-Axtell-Comp
		Field Sample ID	PREC-Axtell-01-061912	PREC-Axtell-02-061912	PREC-Axtell-03-061912	PREC-Axtell-04-061912	PREC-Axtell-Composite-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	3100 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	775 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	775 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	3480 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	775 U
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	5220 U
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	1550 U
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	3480 U
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	7750 UJ
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	3480 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	5220 U
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	1550 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	3480 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	775 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	775 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	775 U
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	1550 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	1550 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	3480 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	3480 U
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	775 U
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	775 U
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	775 U
8270	ANILINE	µg/kg	NA	NA	NA	NA	1550 U
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	775 U
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	7750 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	1440
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	1700
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	2380
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	1170
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	968
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	1550 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	775 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	775 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	775 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	775 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	775 U

Table D-2  
Axtell Creek Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-Axtell-01	PREC-Axtell-02	PREC-Axtell-03	PREC-Axtell-04	PREC-Axtell-Comp
		Field Sample ID	PREC-Axtell-01-061912	PREC-Axtell-02-061912	PREC-Axtell-03-061912	PREC-Axtell-04-061912	PREC-Axtell-Composite-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	775 U
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	3480 U
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	1670
8270	DIALATE	µg/kg	NA	NA	NA	NA	5220 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	775 U
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	775 U
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	775 U
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	3480 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	775 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	3480 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	775 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	775 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	3480 U
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	3480 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	3480 U
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	1740 U
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	3320 J-
8270	FLUORENE	µg/kg	NA	NA	NA	NA	775 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	3100 UJ
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	775 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	5220 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	1080
8270	ISODRIN	µg/kg	NA	NA	NA	NA	5220 U
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	775 U
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	3480 U
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	39600 U
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	3480 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	3480 U
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	3480 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	775 U
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	775 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	5220 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	775 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	3480 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	775 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	775 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	3480 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	3480 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	3480 U
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	3480 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	3480 U
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	3480 U
8270	PARATHION	µg/kg	NA	NA	NA	NA	3480 U

Table D-2  
Axtell Creek Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-Axtell-01	PREC-Axtell-02	PREC-Axtell-03	PREC-Axtell-04	PREC-Axtell-Comp
		Field Sample ID	PREC-Axtell-01-061912	PREC-Axtell-02-061912	PREC-Axtell-03-061912	PREC-Axtell-04-061912	PREC-Axtell-Composite-061912
		Sampling Date	6/19/2012	6/19/2012	6/19/2012	6/19/2012	6/19/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	3480 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	3480 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	1550 U
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	3480 U
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	1710
8270	PHENOL	µg/kg	NA	NA	NA	NA	1550 U
8270	PHORATE	µg/kg	NA	NA	NA	NA	3480 U
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	3480 U
8270	PYRENE	µg/kg	NA	NA	NA	NA	3020
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	775 U
8270	SAFROLE	µg/kg	NA	NA	NA	NA	3480 U
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	3480 U
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	3480 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J - = Estimated result biased low  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table D-3**  
**Axtell Creek Confirmation and Core Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-Axtell-1	CSD-Axtell-1	CSD-Axtell-1	CSD-Axtell-2	CSD-Axtell-2
		Field Sample ID	CSD-Axtell-1-071212	CSD-Axtell-1-071712B	CSA-Axtell-1-080912C	CSD-Axtell-2-071212	CSD-Axtell-2-071712B
		Sampling Date	7/12/2012	7/17/2012	8/9/2012	7/12/2012	7/17/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.093 U	0.12 U	0.069 U	0.063 U	0.12 U
8082	AROCLOR 1221	mg/kg	0.093 U	0.12 U	0.069 U	0.063 U	0.12 U
8082	AROCLOR 1232	mg/kg	0.093 U	0.12 U	0.069 U	0.063 U	0.12 U
8082	AROCLOR 1242	mg/kg	23	32 J+	0.069 U	7.2	12
8082	AROCLOR 1248	mg/kg	0.093 U	0.12 U	0.069 U	0.063 U	0.12 U
8082	AROCLOR 1254	mg/kg	4.9	3.8 J+	0.069 U	1.7	2.3
8082	AROCLOR 1260	mg/kg	0.093 U	0.12 U	0.069 U	0.063 U	0.12 U
8082	Total PCBs (Sum of Detections)	mg/kg	27.9	35.8	0 U	8.9	14.3

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-Axtell-2	CSD-Axtell-3	CSD-Axtell-3	CSD-Axtell-3	CSD-Axtell-4
		Field Sample ID	CSA-Axtell-2-080912C	CSD-Axtell-3-071212	CSD-Axtell-3-072512B	CSD-Axtell-3-081312C	CSD-Axtell-4-071312
		Sampling Date	8/9/2012	7/12/2012	7/25/2012	8/13/2012	7/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.11 U	0.07 U	0.099 U	0.073 U	0.078 U
8082	AROCLOR 1221	mg/kg	0.11 U	0.07 U	0.099 U	0.073 U	0.078 U
8082	AROCLOR 1232	mg/kg	0.11 U	0.07 U	0.099 U	0.073 U	0.078 U
8082	AROCLOR 1242	mg/kg	0.83	14 J	17	6.1	16 J+
8082	AROCLOR 1248	mg/kg	0.11 U	0.07 U	0.099 U	0.073 U	0.078 U
8082	AROCLOR 1254	mg/kg	0.14	2.1 J	2.3	0.87	2.7 J+
8082	AROCLOR 1260	mg/kg	0.11 U	0.07 U	0.099 U	0.073 U	0.078 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.97	16.1	19.3	6.97	18.7



**Table D-3**  
**Axtell Creek Confirmation and Core Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Confirmation	Confirmation	Confirmation
		Location ID	CSD-Axtell-4	CSD-Axtell-4	CSD-Axtell-5
		Field Sample ID	CSD-Axtell-4-072512B	Axtell-4-081312C	CSD-Axtell-5-071612
		Sampling Date	7/25/2012	8/13/2012	7/16/2012
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.073 U	0.047 U	0.055 U
8082	AROCLOR 1221	mg/kg	0.073 U	0.047 U	0.055 U
8082	AROCLOR 1232	mg/kg	0.073 U	0.047 U	0.055 U
8082	AROCLOR 1242	mg/kg	20	0.061	3.4
8082	AROCLOR 1248	mg/kg	0.073 U	0.047 U	0.055 U
8082	AROCLOR 1254	mg/kg	2.6	0.047 U	0.75
8082	AROCLOR 1260	mg/kg	0.073 U	0.047 U	0.055 U
8082	Total PCBs (Sum of Detections)	mg/kg	22.6	0.061	4.15

		Location Description	Axtell Creek	Axtell Creek
		Location Type	Confirmation	Confirmation
		Location ID	CSD-Axtell-5	CSD-Axtell-5
		Field Sample ID	CSD-Axtell-5-072512B	Axtell-5-081312C
		Sampling Date	7/25/2012	8/13/2012
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8082	AROCLOR 1016	mg/kg	0.052 U	0.046 U
8082	AROCLOR 1221	mg/kg	0.052 U	0.046 U
8082	AROCLOR 1232	mg/kg	0.052 U	0.046 U
8082	AROCLOR 1242	mg/kg	3.2	0.12
8082	AROCLOR 1248	mg/kg	0.052 U	0.046 U
8082	AROCLOR 1254	mg/kg	0.73	0.069
8082	AROCLOR 1260	mg/kg	0.052 U	0.046 U
8082	Total PCBs (Sum of Detections)	mg/kg	3.93	0.189

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

NA = Not applicable

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

Table D-4  
Axtell Creek Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Axtell-01	PSTC-Axtell-02	PSTC-Axtell-03	PSTC-Axtell-04	PSTC-Axtell-COMP
		Field Sample ID	PSTC-Axtell-01-102512	PSTC-Axtell-02-102512	PSTC-Axtell-03-102512	PSTC-Axtell-04-102512	PSTC-Axtell-Composite-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	5900 J+
6020	ANTIMONY	mg/kg	NA	NA	NA	NA	0.364
6020	ARSENIC	mg/kg	NA	NA	NA	NA	7.98
6010B	BARIUM	mg/kg	NA	NA	NA	NA	88.1 J-
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	1.02 U
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	6.12 U
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	14400 J
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	18.6
6010B	COBALT	mg/kg	NA	NA	NA	NA	4.18
6020	COPPER	mg/kg	NA	NA	NA	NA	29.6
6010B	IRON	mg/kg	NA	NA	NA	NA	11900 J+
6010B	LEAD	mg/kg	NA	NA	NA	NA	163 J-
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	4180 J+
6020	MANGANESE	mg/kg	NA	NA	NA	NA	510
7471	MERCURY	mg/kg	NA	NA	NA	NA	0.434 J+
6010B	NICKEL	mg/kg	NA	NA	NA	NA	11.3
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	657
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	20.4 U
6020	SILVER	mg/kg	NA	NA	NA	NA	0.292
6010B	SODIUM	mg/kg	NA	NA	NA	NA	204 U
6020	THALLIUM	mg/kg	NA	NA	NA	NA	0.243 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	15.8
6010B	ZINC	mg/kg	NA	NA	NA	NA	122 J
8081	4,4'-DDD	mg/kg	NA	NA	NA	NA	0.0615 U
8081	4,4'-DDE	mg/kg	NA	NA	NA	NA	0.164
8081	4,4'-DDT	mg/kg	NA	NA	NA	NA	0.574
8081	ALDRIN	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ALPHA-BHC	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ALPHA-CHLORDANE	mg/kg	NA	NA	NA	NA	0.0615 U
8081	BETA-BHC	mg/kg	NA	NA	NA	NA	0.0615 U
8081	CHLORDANE	mg/kg	NA	NA	NA	NA	0.123 U
8081	DELTA-BHC	mg/kg	NA	NA	NA	NA	0.0615 U
8081	DIELDRIN	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ENDOSULFAN I	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ENDOSULFAN II	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ENDOSULFAN SULFATE	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ENDRIN	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ENDRIN ALDEHYDE	mg/kg	NA	NA	NA	NA	0.0615 U
8081	ENDRIN KETONE	mg/kg	NA	NA	NA	NA	0.0615 U
8081	GAMMA-BHC (LINDANE)	mg/kg	NA	NA	NA	NA	0.0615 U
8081	GAMMA-CHLORDANE	mg/kg	NA	NA	NA	NA	0.0615 U
8081	HEPTACHLOR	mg/kg	NA	NA	NA	NA	0.0615 U
8081	HEPTACHLOR EPOXIDE	mg/kg	NA	NA	NA	NA	0.0615 U
8081	HEXACHLOROBENZENE, PEST	mg/kg	NA	NA	NA	NA	0.0615 U

Table D-4  
Axtell Creek Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Axtell-01	PSTC-Axtell-02	PSTC-Axtell-03	PSTC-Axtell-04	PSTC-Axtell-COMP
		Field Sample ID	PSTC-Axtell-01-102512	PSTC-Axtell-02-102512	PSTC-Axtell-03-102512	PSTC-Axtell-04-102512	PSTC-Axtell-Composite-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8081	METHOXYCHLOR	mg/kg	NA	NA	NA	NA	0.0615 U
8081	TOXAPHENE	mg/kg	NA	NA	NA	NA	0.369 U
8082	AROCLOR 1016	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	AROCLOR 1221	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	AROCLOR 1232	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	AROCLOR 1242	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	AROCLOR 1248	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	AROCLOR 1254	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	AROCLOR 1260	mg/kg	0.124 U	0.134 U	0.125 U	0.111 U	0.123 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	10 U
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	10 U
8151	2,4-D	µg/kg	NA	NA	NA	NA	10 U
8151	2,4-DB	µg/kg	NA	NA	NA	NA	10 U
8151	4-NITROPHENOL, HERB	µg/kg	NA	NA	NA	NA	41 U
8151	DALAPON	µg/kg	NA	NA	NA	NA	410 U
8151	DICAMBA	µg/kg	NA	NA	NA	NA	10 U
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	10 U
8151	DINOSEB	µg/kg	NA	NA	NA	NA	130 U
8151	MCPA	µg/kg	NA	NA	NA	NA	2500 U
8151	MECOPROP	µg/kg	NA	NA	NA	NA	2500 U
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	10 UJ
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	6.04 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	6.04 U
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	60.4 U
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	60.4 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	60.4 U
8260	ACETONE	µg/kg	NA	NA	NA	NA	121 U

Table D-4  
Axtell Creek Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Axtell-01	PSTC-Axtell-02	PSTC-Axtell-03	PSTC-Axtell-04	PSTC-Axtell-COMP
		Field Sample ID	PSTC-Axtell-01-102512	PSTC-Axtell-02-102512	PSTC-Axtell-03-102512	PSTC-Axtell-04-102512	PSTC-Axtell-Composite-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	60.4 U
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	60.4 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	6.04 U
8260	BENZENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	6.04 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	12.1 U
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	6.04 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	6.04 U
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	6.04 U
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	12.1 U
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	6.04 U
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	6.04 U
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	6.04 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	6.04 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	60.4 U
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	60.4 U
8260	STYRENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TOLUENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	6.04 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	6.04 U
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	6.04 U
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	2.41 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	6.04 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	8180 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U

Table D-4  
Axtell Creek Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Axtell-01	PSTC-Axtell-02	PSTC-Axtell-03	PSTC-Axtell-04	PSTC-Axtell-COMP
		Field Sample ID	PSTC-Axtell-01-102512	PSTC-Axtell-02-102512	PSTC-Axtell-03-102512	PSTC-Axtell-04-102512	PSTC-Axtell-Composite-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	12300 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	1820 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	8180 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	12300 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	12300 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	7290 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	1820 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	1820 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	8180 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	1820 U
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	12300 U
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	3650 U
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	8180 U
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	18200 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	8180 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	12300 U
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	3650 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	8180 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	1820 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	1820 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	1820 U
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	3650 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	3650 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	8180 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	8180 U
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	1820 U

Table D-4  
Axtell Creek Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Axtell-01	PSTC-Axtell-02	PSTC-Axtell-03	PSTC-Axtell-04	PSTC-Axtell-COMP
		Field Sample ID	PSTC-Axtell-01-102512	PSTC-Axtell-02-102512	PSTC-Axtell-03-102512	PSTC-Axtell-04-102512	PSTC-Axtell-Composite-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	1820 U
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	1820 U
8270	ANILINE	µg/kg	NA	NA	NA	NA	3650 U
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	1820 U
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	18200 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	1820 U
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	1820 U
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	1820 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	1820 U
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	1820 U
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	3650 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	1820 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	1820 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	1820 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	1820 R
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	1820 R
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	1820 U
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	8180 U
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	1820 U
8270	DIALLATE	µg/kg	NA	NA	NA	NA	12300 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	1820 U
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	1820 U
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	1820 R
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	8180 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	1820 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	8180 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	1820 R
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	1820 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	8180 U
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	8180 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	8180 U
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	4090 U
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	1820 U
8270	FLUORENE	µg/kg	NA	NA	NA	NA	1820 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	7290 U
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	1820 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	12300 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	1820 U
8270	ISODRIN	µg/kg	NA	NA	NA	NA	12300 U
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	1820 U



Table D-4  
Axtell Creek Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek	Axtell Creek
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-Axtell-01	PSTC-Axtell-02	PSTC-Axtell-03	PSTC-Axtell-04	PSTC-Axtell-COMP
		Field Sample ID	PSTC-Axtell-01-102512	PSTC-Axtell-02-102512	PSTC-Axtell-03-102512	PSTC-Axtell-04-102512	PSTC-Axtell-Composite-102512
		Sampling Date	10/25/2012	10/25/2012	10/25/2012	10/25/2012	10/25/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	8180 U
8270	KEPONE, SVOC	µg/kg	NA	NA	NA	NA	93000 U
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	8180 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	8180 U
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	8180 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	1820 U
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	1820 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	12300 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	1820 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	8180 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	1820 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	1820 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	8180 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	8180 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	8180 U
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	8180 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	8180 U
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	8180 U
8270	PARATHION	µg/kg	NA	NA	NA	NA	8180 U
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	8180 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	8180 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	3650 U
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	8180 U
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	1820 U
8270	PHENOL	µg/kg	NA	NA	NA	NA	3650 U
8270	PHORATE	µg/kg	NA	NA	NA	NA	8180 U
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	8180 U
8270	PYRENE	µg/kg	NA	NA	NA	NA	1820 U
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	1820 R
8270	SAFROLE	µg/kg	NA	NA	NA	NA	8180 U
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	8180 U
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	8180 U

Notes:

µg/kg = Microgram per kilogram

ID = Identification

J+ = Estimated result biased high

J = Estimated result

J - = Estimated result biased low

mg/kg = Milligram per kilogram

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

R = Result rejected

SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

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**ATTACHMENT D-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 1

**Direction:** South

**Subject:** Mat installation

**Date:** 6/22/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 2

**Direction:** West

**Subject:** Driving a section of sheet piling into creek bed

**Date:** 6/22/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 3

**Direction:** Southwest

**Subject:** Building a swamp mat platform near the east end

**Date:** 6/25/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 4

**Direction:** West

**Subject:** Driving a section of sheet piling near the eastern end

**Date:** 6/25/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 5  
**Direction:** Southeast  
**Subject:** Polyethylene sheeting laid along the bank

**Date:** 7/10/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 6  
**Direction:** Southwest  
**Subject:** Excavation of contaminated sediment

**Date:** 7/10/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 7

**Direction:** Southwest

**Subject:** Surface water diversion pipe removing water

**Date:** 7/10/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 8

**Direction:** Northeast

**Subject:** Excavation of contaminated sediment

**Date:** 7/10/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 9  
**Direction:** Southwest  
**Subject:** Excavation of contaminated sediment

**Date:** 7/11/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 10  
**Direction:** Southwest  
**Subject:** Excavation of contaminated sediment

**Date:** 7/12/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 11  
**Direction:** Southwest  
**Subject:** Restoration activities

**Date:** 7/18/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 12  
**Direction:** Southwest  
**Subject:** Excavation of contaminated sediment

**Date:** 7/18/12  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 13

**Direction:** Southwest

**Subject:** Cofferdam and water pumps located at the western end

**Date:** 7/20/12

**Photographer:** Hilary Verduce



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 14

**Direction:** Southeast

**Subject:** Restoration activities

**Date:** 7/20/12

**Photographer:** Hilary Verduce



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 15  
**Direction:** Southeast  
**Subject:** Restoration activities

**Date:** 7/23/12  
**Photographer:** Hilary Verduce



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 16  
**Direction:** Southeast  
**Subject:** Excavation activities

**Date:** 7/23/12  
**Photographer:** Hilary Verduce





**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 17  
**Direction:** Northeast  
**Subject:** Moving sediment on the staging pad

**Date:** 7/23/12  
**Photographer:** Hilary Verduce



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 18  
**Direction:** East  
**Subject:** Further excavation of sediment from Grids 1 and 2

**Date:** 8/9/12  
**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 19  
**Direction:** East  
**Subject:** Excavation of contaminated sediment

**Date:** 8/13/12  
**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 20  
**Direction:** Southeast  
**Subject:** Excavation of contaminated sediment

**Date:** 8/13/12  
**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 21  
**Direction:** West  
**Subject:** Excavation of contaminated sediment

**Date:** 8/13/12  
**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek  
**Photograph No.:** 22  
**Direction:** East  
**Subject:** Restoration activities

**Date:** 8/15/12  
**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 23

**Direction:** West

**Subject:** Restoration activities

**Date:** 8/16/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 24

**Direction:** West

**Subject:** Restoration activities

**Date:** 8/16/12

**Photographer:** Sean Kane





**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 25

**Direction:** West

**Subject:** Restoration activities

**Date:** 8/16/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 26

**Direction:** Northwest

**Subject:** Loading non-TSCA sediment onto a truck for off-site disposal

**Date:** 8/16/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 27

**Direction:** West

**Subject:** After restoration

**Date:** 8/17/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – Axtell Creek

**Photograph No.:** 28

**Direction:** West

**Subject:** Coir logs placed along the south bank

**Date:** 9/5/12

**Photographer:** Sean Kane

## **APPENDIX E**

### **SLOPE AREA 5-C REPORT PORTAGE CREEK AREA SITE**

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## **LIST OF ATTACHMENTS**

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- E-A Photographic Documentation

## **1. SLOPE AREA BACKGROUND**

### **1.1 SLOPE AREA DESCRIPTION**

SA5-C is located in downtown Kalamazoo, Michigan, and extends north from East Crosstown Parkway to East Vine Street. The approximate geographic coordinates are latitude 42.28340° North and longitude -85.57897° West (**Figure E-1**). The entire triangular footprint of the SA5-C excavation area was divided into seven grids encompassing approximately 15,000 ft<sup>2</sup>. SA5-C is located within the northern section of Upjohn Park and is bordered by East Vine Street to the north, East Crosstown Parkway to the south, and Jasper Street to the west. Portage Creek flows through SA5-C from the south to the north (**Figure E-2**).

### **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from one property owner, providing access to the excavation area from East Crosstown Parkway to East Vine Street. The property owner granted EPA and its contractors permission to establish an access road, conduct contaminated sediment excavation operations, and restore the property after the excavation activities were completed. During the Site operations, EPA scheduled weekly meetings with the property owner, conducted a walk-through, and provided updates on current and planned activities.

### **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation (note: the SA5-C Technical Memorandum was combined into one document with the SA5-D and Axtell Creek excavation areas)
- Collection and PCB analysis of sediment core samples to confirm excavation depths within each excavation grid, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal assessment to document existing Site conditions
- Installation of environmental controls to minimize impact of excavation activities on original Site features
- Clearing and grubbing to allow physical access to excavation area

- Collection of pre-construction soil samples from support area
- Construction of an access road, as necessary
- Construction of a sandbag dam
- Installation and operation of a by-pass pumping system and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation, verification, and investigative sediment samples obtained from excavation grids
- Removal of all environmental controls, access road, and pump systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from support area
- Development of an area-specific restoration plan in coordination with property owner

After the completion of the Site set-up activities (i.e., installation of the groundwater diversion system; construction of the sandbag dam; and installation of environmental controls), ERRS excavated TSCA and non-TSCA PCB-contaminated sediments from Grids 1 - 6, beginning in Grid 1 and continuing from south to north through Grid 6. Additional information on excavation activities is provided in Section 3.

A total of twenty-seven in-stream sediment core samples from seven different locations, sixteen pre-construction soil samples (including one duplicate sample), seven confirmation sediment samples (including one duplicate sample), two verification sediment samples, one investigative sediment sample from the western bank of Grid 1, and sixteen post-construction soil samples (including one duplicate sample) were collected prior to, during, and after excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 - 4.3.

Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information is provided for these activities in Section 5.2.

## 2. PRE-REMOVAL ACTIVITIES

This section discusses the pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment E-A** provides photographic documentation of selected pre-removal activities.

### 2.1 PRE-REMOVAL SAMPLING ACTIVITIES

ERRS and START performed pre-excavation sediment sampling in July 2012. During this sampling event, one sediment core was collected from each Grids 1 - 7. These cores were processed and sampled in approximately 12-inch intervals. All analytical data results for pre-removal sediment samples are presented in **Table E-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses that were conducted. The intent of this sampling was to confirm vertical extent of contamination, to determine if contaminant levels were below TSCA landfill disposal parameters, and to finalize sediment excavation depths within each grid. The samples were shipped to ALS Global Laboratory of Holland, Michigan, for PCB analysis. The analytical results verified that sediment contaminant levels for PCBs were above TSCA disposal limits. As a result, the sediment located in SA5-C was excavated as TSCA sediment.

### 2.2 PRE-REMOVAL FEATURES ASSESSMENT

START recorded photographic and video documentation of the pre-removal features at SA5-C, including the access road, entrance, and surrounding areas. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal assessment of in-place constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment, Removal Areas SA5-Axtell, SA5-D and SA5-C” (Fleis and Vandenbrink Engineering Inc., May 2012) is available upon request. This assessment was used to determine if any corrective actions or repairs were required once the excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of an Access Road**

A subcontractor cleared vegetative cover that restricted excavation operations, including overgrown brush, grass, and bushes. The western bank was cleared to facilitate placement of the by-pass pumping system and groundwater diversion pipes. The eastern bank was cleared to allow for grid excavation and load-out activities, placement of groundwater diversion pipes, and construction of the access road. The access road, which was constructed using 1-inch by 3-inch limestone rock and wooden timber mats, was placed in a circular pattern in the area located to the east of the creek. This circular pattern facilitated vehicle movement and turn-around in the slope area. A chain-link fence was installed around the entire working area to prevent access to the excavation area and to protect patrons of Upjohn Park, the Senior Citizen Center, the public transportation stop on Jasper Street, and the nearby Youth Development Center from construction activities.

A construction entrance was located east of Portage Creek on East Crosstown Parkway to permit access to the excavation area and to allow trucks to cross over East Crosstown Parkway and use the excavation area access road. Vehicles used the access road and portable temporary steel bridge system to transport sediment to the John Street staging pad. During all work activities, traffic on East Crosstown Parkway was controlled through the use of flaggers and temporary signage located at both the east and west construction entrances.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-excavation topographic survey of the excavation area on August 22, 2012. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for determining the contaminated sediment excavation surface area within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during excavation activities. The RTK-GPS equipment ensured that operators were excavating sediment and backfilling each grid to targeted lateral and vertical limits of each grid.



### **2.3.3 Excavation Area Isolation and Dewatering**

In addition to sheet pile cofferdams already installed for isolation of SA5-D and Axtell Creek excavation areas, a sandbag dam was constructed to further isolate the excavation area and to facilitate the dewatering of contaminated sediments. The sandbag dam was located immediately south of the East Vine Street bridge at the southern end of Grid 7 (**Figure E-2**). The sandbag dam was constructed in Grid 7 due to the proximity of SA5-C to the roadway and presence and uncertain location of buried utilities (telecommunication lines) within Grid 7. The sandbag dam consisted of several large, woven polyethylene, flexible “supersacks” filled with clean sand. The supersacks were placed side by side and wrapped in a polypropylene membrane liner.

To further dry out the creek channel, another subcontractor installed a series of groundwater extraction wells along the eastern and western banks of excavation grids. The setup consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5ft centers to an approximate depth of 10ft below the creek bottom. The sipper wells were connected to a 6-inch-diameter PVC manifold pipe via flexible tubing. The manifold pipe was connected to 6-inch-diameter vacuum pumps that discharged groundwater past the downstream isolation sandbag dam. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

### **2.3.4 By-Pass Pumping**

The by-pass pumping system consisted of five 12-inch by-pass pumps and two 18-inch discharge lines, while the Axtell Creek by-pass pumping system consisted of two 6-inch by-pass pumps and one 12-inch discharge line. These systems, which were used during the excavation activities in SA5-D, Axtell Creek, and SA5-C, captured creek water immediately upstream of the cofferdams located in Grid 1 of SA5-D and Grid 1 of Axtell Creek and discharged the water downstream of the sandbag dam located south of East Vine Street. The water was discharged onto a rock pad to dissipate the water’s flow velocity and thus minimize potential for erosion of the creek channel bottom. The staging pads for pump systems were located on the north side of Lake Street immediately west of Portage Creek and on the east side of John Street immediately south of Axtell Creek. For security purposes, chain-link fences were installed around both by-pass staging areas.

Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed.

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize the impact of the excavation activities. Many of the environmental controls were specified in the SESC Plan. The environmental controls are summarized below:

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.
- Construction Entrance/Exit - Site access was established on the north side of East Crosstown Parkway along the eastern bank. The access road consisted of either 1-inch by 3-inch rock or wooden timber mats placed directly on top of existing soil. A curb cut was made and a concrete apron was installed at the entrance/exit to facilitate access to the excavation area from East Crosstown Parkway.
- Dust Control - A water truck applied water for dust control within the support area and along the truck entrance/exit as necessary.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along both sides of the creek to stabilize sediments and to prevent erosion into the creek channel.
- Upstream Debris Screen - A subcontractor installed a wire mesh screen across the creek by attaching the screen to the upstream end of the Lake Street bridge. This screen, which was cleared on a daily basis, prevented floating debris from entering and clogging or blocking the pump intake pipes.
- Rock Discharge Pad - A rock discharge pad was installed, downstream of the isolated area, where discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stones that dissipated the water's discharge velocity and reduced erosion of the creek bed.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during the excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the sheet pile cofferdams or sandbag dams installed in the slope area. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at the turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### 3. EXCAVATION/DISPOSAL ACTIVITIES

The excavation of contaminated sediments commenced in Grid 1 and continued from south to north through Grid 6. **Attachment E-A** provides photographic documentation of the excavation activities. The table below lists excavation details, including targeted excavation depths.

**SA5-C EXCAVATION DETAILS**

<b>Grid</b>	<b>Targeted Excavation Depth (inches bss)</b>	<b>Final Excavation Depth (inches bss)</b>	<b>Surface Area of Excavated Sediment (ft<sup>2</sup>)</b>	<b>Volume of Excavated Sediment (yd<sup>3</sup>)</b>
1	36	71	2093	459
2	36	54	2147	358
3	36	66	2834	577
4	52	65	2594	520
5	52	71	2253	494
6	52	68	2233	469
7*	52	-	-	-

\* An existing fiber-optic cable located in Grid 7 prevented excavation activities

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = Cubic yard

In order to access contaminated sediments, a long reach excavator was positioned along the eastern bank or on constructed decks extending into the excavation area. Grid 7 was not excavated due to the presence of a large fiber-optic cable providing communications to a nearby hospital. If sediments were sufficiently dry, the long reach excavator loaded excavated material directly into ORDTs that hauled the sediment directly to the John Street staging pad. The ORDTs transported the excavated sediment to the staging pad by crossing East Crosstown Parkway, driving on the SA5-D access road, and crossing over the portable temporary steel bridge system installed across Grid 6. If sediments were too wet for direct shipment, excavated material was loaded into a 20 yd<sup>3</sup> mixing box, where a corn cob-based absorbent material was mixed in by a second excavator. This process solidified sediment prior to its loading into ORDTs. The ORDTs emptied their loads directly onto the staging pad, which was designed to contain contaminated sediments along with any residual water or run-off from precipitation. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were

accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils along the eastern bank and support area of the excavation area. The support area was divided into 2,500 ft<sup>2</sup> sample grids for PCB analysis and 10,000 ft<sup>2</sup> sample areas for analysis of TCL VOCs and SVOCs, TCL pesticides and herbicides, TAL metals, and PCBs. All analytical data results for the pre-construction soil samples are presented in **Table E-2**. Analytical data validation reports are available upon request.

Thirteen 2,500 ft<sup>2</sup> soil samples (including one duplicate sample) and three 10,000 ft<sup>2</sup> composite soil samples were collected from the eastern bank and support area of SA5-C. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500 ft<sup>2</sup> grid. A composite sample of four 2,500 ft<sup>2</sup> grids was generated from the residual sample material obtained from the six-point composite samples, representing 10,000 ft<sup>2</sup>.

### **4.2 CONFIRMATION, VERIFICATION, AND INVESTIGATIVE SEDIMENT SAMPLING**

During and after excavation of contaminated sediments, START and EPA collected confirmation, verification, and investigative sediment samples. Verification sampling was conducted in certain grids where visual evidence of paper sludge or heavily stained soils was observed at original target depths specified in the Technical Memorandum. The purpose of verification sampling was to confirm whether or not PCB contamination still existed, warranting further excavation to meet cleanup standards. All analytical data results for confirmation and verification sediment samples are presented in **Table E-3**. Analytical data validation reports are available upon request.

Seven confirmation samples were collected from Grids 1 - 6 at the final excavation depths (including one duplicate sample from Grid 6). Verification samples were collected from Grids 1 and 4 at the original target depths of 36 and 52 inches below the sediment surface, respectively.

Verification samples were not collected from all grids for cost and time efficiency considerations. In other grids, if visual evidence of paper sludge or heavily stained soils was observed at original target depths, excavation continued beyond the target depth until the grids were visibly clean of contaminated sediment.

For the confirmation and verification sediment samples, one six-point composite sample was collected from each grid for PCB analysis. The confirmation and verification analytical results were evaluated against the performance standard designated for stream sediments of less than or equal to 10 mg/kg of PCBs with a performance standard goal of 1 mg/kg.

Due to the unusual appearance of a small area of sediment located on the western bank of Grid 1, one investigative grab sample was collected from this area, and was analyzed for PCBs; TCL VOCs; TCL SVOCs; diesel-range organics; gasoline range organics; total petroleum hydrocarbons-extended-range organics; and TAL metals.

#### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as the pre-construction samples, and used the same grid areas and sample node locations. All analytical data results for the post-construction soil samples are presented in **Table E-4**. Analytical data validation reports are available upon request.

Twelve individual 2,500 ft<sup>2</sup> grids and three 10,000 ft<sup>2</sup> areas were sampled. One duplicate sample was collected from a 2,500 ft<sup>2</sup> grid. The individual 2,500 ft<sup>2</sup> samples, which were analyzed for PCBs, were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. All composited 10,000 ft<sup>2</sup> samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals, and PCBs. To ensure that the work activities did not contaminate the support area, the results of the post-construction samples were compared to the results of the pre-construction soil samples.

#### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-Site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a



DataRAM particulate monitor positioned downwind of the excavation areas during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure E-3** shows the DataRAM monitoring locations.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

## **5. POST-REMOVAL ACTIVITIES**

### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Areas SA5-Axtell, SA5-D and SA5-C (Fleis and Vandenbrink Engineering Inc., October 2012), available upon request.

### **5.2 RESTORATION**

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment E-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing Site infrastructure and equipment required to conduct sediment excavation operations and making any necessary repairs to property and constructed features resulting from sediment excavation operations (Note: The curb cut made for the construction entrance/exit was replaced with a new curb). The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until vegetation was re-established (see Section 5.2.2).

### **5.2.1 Bank Stabilization and Creek Channel Backfilling**

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the eastern and western banks. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inch) were placed every three feet on the waterside and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.

Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from excavation activities. All corrective actions necessary to repair any damaged features resulting from sediment excavation operations were completed. EPA coordinated with appropriate stakeholders to verify their acceptance of Site repairs and conducted final Site walk-through inspections with the property owner.

### **5.2.2 Re-vegetation**

An area-specific restoration plan (available upon request) was completed in coordination with the property owner and in accordance with the overall Site Restoration Plan. The overall area was re-graded with fresh topsoil, the area-specific restoration plan was implemented by a subcontractor.

The area-specific restoration plan included the planting of trees, shrubs, and vegetative plugs throughout the impacted areas and the application of a grass seed/fertilizer mix, with straw cover, to prevent erosion within the impacted areas.

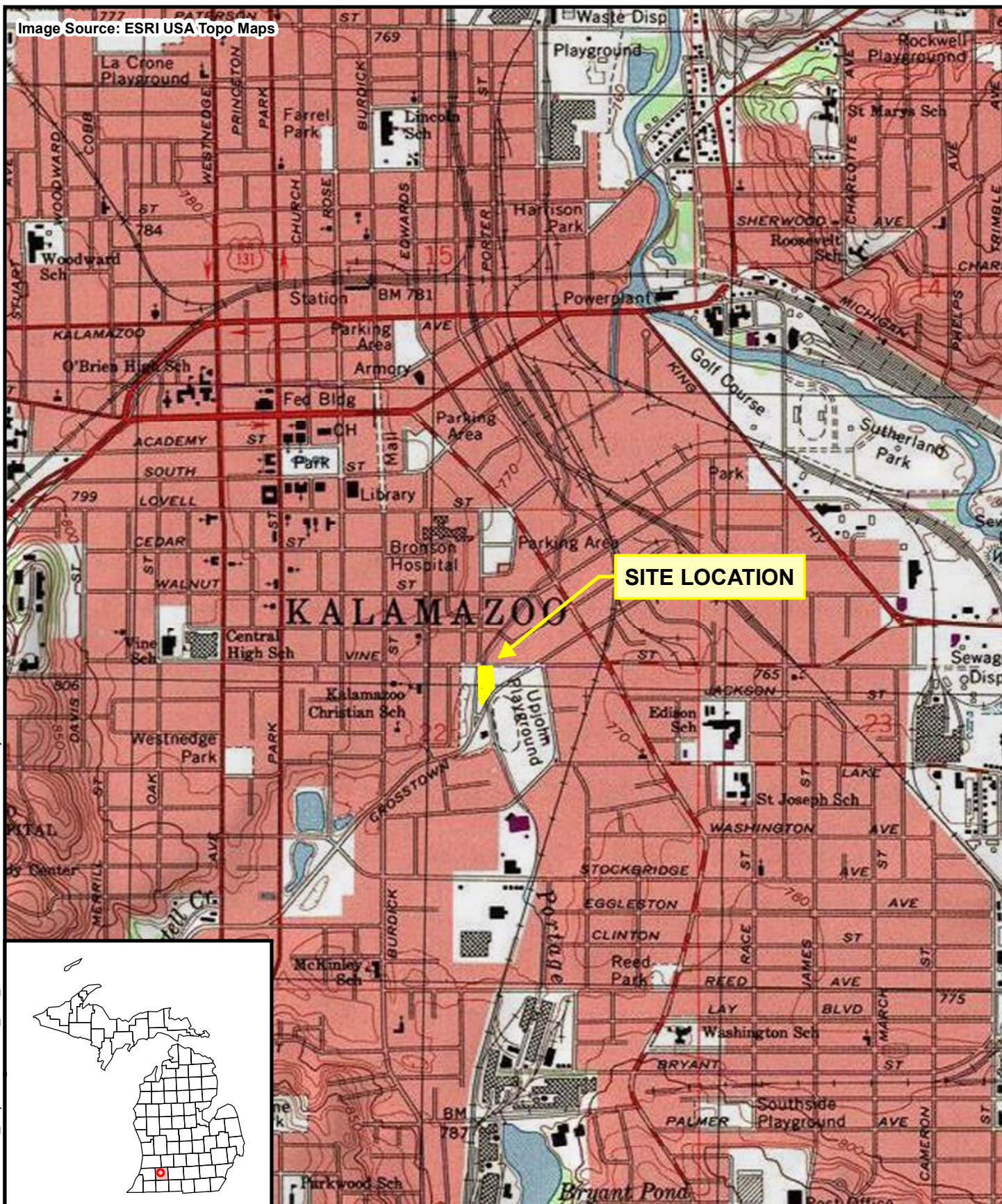
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## FIGURES

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Image Source: ESRI USA Topo Maps



# Legend

Site Boundary

0 2,000 Feet



Prepared For:  
U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
WESTON  
SOLUTIONS, INC

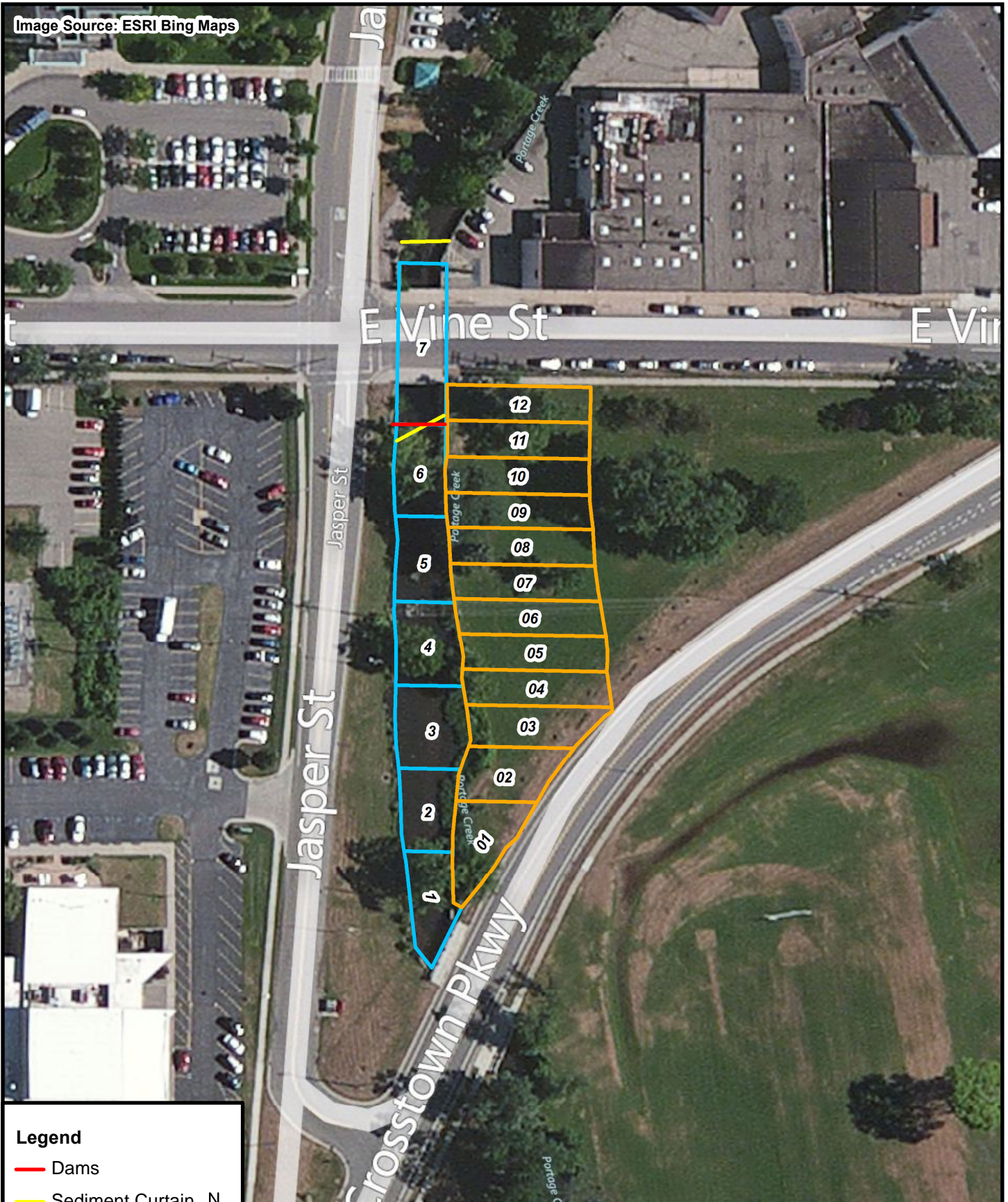
360 East Maple Road  
Suite R  
Troy, Michigan 48083

## Figure E-1

Site Location Map  
Portage Creek Area SA5-C  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- Dams
- Sediment Curtain
- Construction Grids
- Removal Grids

0 125 Feet



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**U.S. EPA REGION V**

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TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



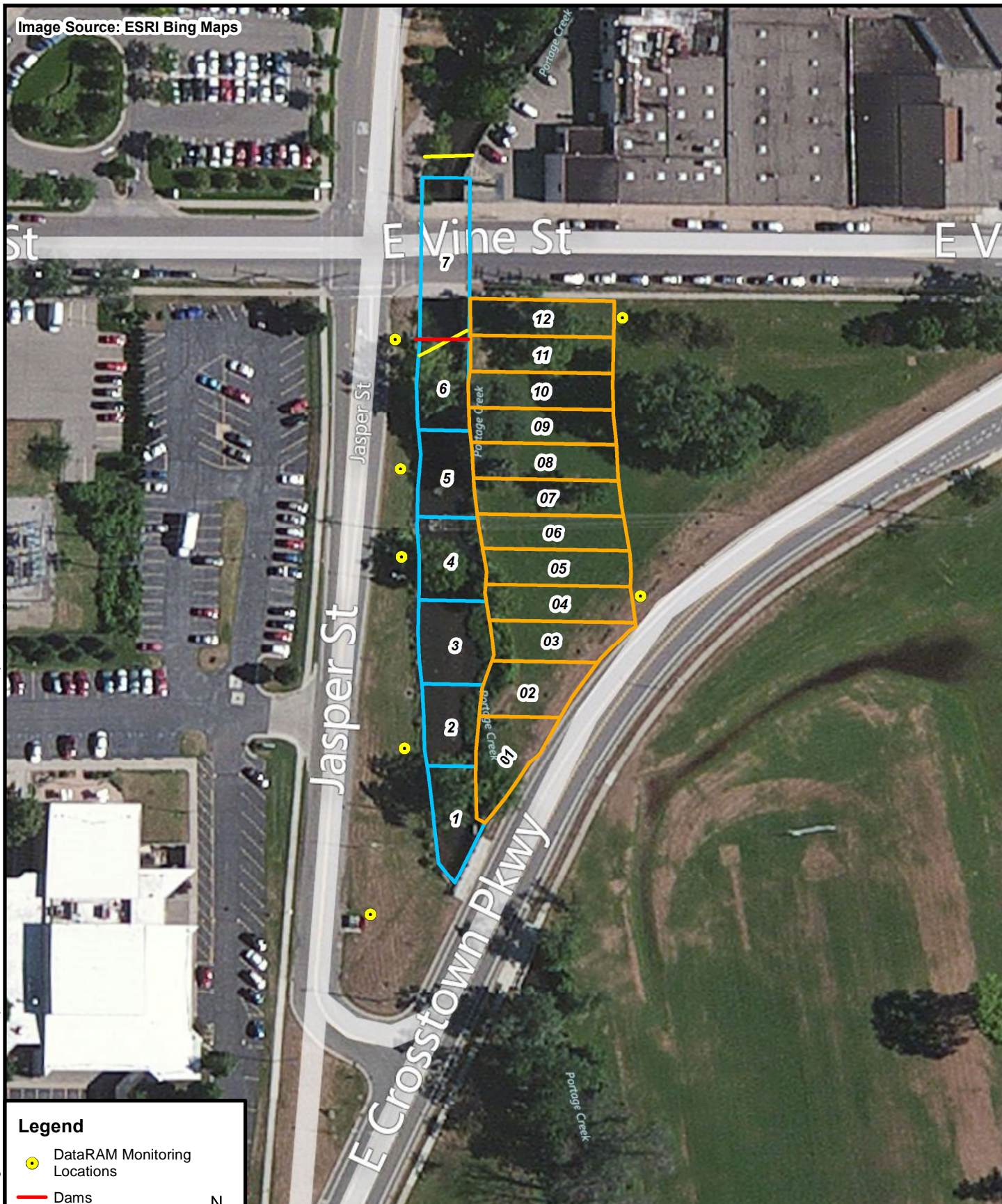
Prepared By:  
**WESTON SOLUTIONS, INC**

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**Figure E-2**  
Site Features Map  
Portage Creek Area SA5-C  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- DataRAM Monitoring Locations
- Dams
- Sediment Curtain
- Construction Grids
- Removal Grids

0 125  
Feet



Prepared For:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



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**Figure E-3**  
DataRAM Location Monitoring Map  
Portage Creek Area SA5-C  
Kalamazoo, Kalamazoo County,  
Michigan

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## TABLES

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**Table E-1**  
**SA5-C Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-1	PRSD-SA5C-1	PRSD-SA5C-1
		Sampling Date	PRSD-SA5C-1 (0-12")	PRSD-SA5C-1 (12-24")	PRSD-SA5C-1 (24-36")
		Depth Interval (inches bss)	7/27/2012	7/27/2012	7/27/2012
		Depth Interval	0- 12	12- 24	24- 36
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.047 U	0.051 U	0.062 U
8082	AROCLOR 1221	mg/kg	0.047 U	0.051 U	0.062 U
8082	AROCLOR 1232	mg/kg	0.047 U	0.051 U	0.062 U
8082	AROCLOR 1242	mg/kg	0.62	6.7	100 J
8082	AROCLOR 1248	mg/kg	0.047 U	0.051 U	0.062 U
8082	AROCLOR 1254	mg/kg	0.2	1.4	11 J
8082	AROCLOR 1260	mg/kg	0.047 U	0.051 U	0.062 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.82	8.1	111

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-1	PRSD-SA5C-1	PRSD-SA5C-2
		Field Sample ID	PRSD-SA5C-1 (36-43")	PRSD-SA5C-1 (43-47")	PRSD-SA5C-2 (0-12")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	36- 43	43- 47	0- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.06 U	0.062 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.06 U	0.062 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.06 U	0.062 U	0.045 U
8082	AROCLOR 1242	mg/kg	35 J	81	0.72
8082	AROCLOR 1248	mg/kg	0.06 U	0.062 U	0.045 U
8082	AROCLOR 1254	mg/kg	5 J	13	0.19
8082	AROCLOR 1260	mg/kg	0.06 U	0.062 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	40	94	0.91

**Table E-1**  
**SA5-C Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-2	PRSD-SA5C-2	PRSD-SA5C-2
		Field Sample ID	PRSD-SA5C-2 (12-24")	PRSD-SA5C-2 (24-36")	PRSD-SA5C-2 (36-47")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	12- 24	24- 36	36- 47
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.048 U	0.082 U	0.069 U
8082	AROCLOR 1221	mg/kg	0.048 U	0.082 U	0.069 U
8082	AROCLOR 1232	mg/kg	0.048 U	0.082 U	0.069 U
8082	AROCLOR 1242	mg/kg	2.1	130 J	19
8082	AROCLOR 1248	mg/kg	0.048 U	0.082 U	0.069 U
8082	AROCLOR 1254	mg/kg	0.93	14 J	5
8082	AROCLOR 1260	mg/kg	0.048 U	0.082 U	0.069 U
8082	Total PCBs (Sum of Detections)	mg/kg	3.03	144	24

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-3	PRSD-SA5C-3	PRSD-SA5C-3
		Field Sample ID	PRSD-SA5C-3 (0-12")	PRSD-SA5C-3 (12-24")	PRSD-SA5C-3 (24-36")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 36
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.047 U	0.045 U	0.052 U
8082	AROCLOR 1221	mg/kg	0.047 U	0.045 U	0.052 U
8082	AROCLOR 1232	mg/kg	0.047 U	0.045 U	0.052 U
8082	AROCLOR 1242	mg/kg	0.56	1	6
8082	AROCLOR 1248	mg/kg	0.047 U	0.045 U	0.052 U
8082	AROCLOR 1254	mg/kg	0.22	0.22	2.9
8082	AROCLOR 1260	mg/kg	0.047 U	0.045 U	0.052 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.78	1.22	8.9



**Table E-1**  
**SA5-C Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-3	PRSD-SA5C-3	PRSD-SA5C-4
		Field Sample ID	PRSD-SA5C-3 (36-48")	PRSD-SA5C-3 (48-52")	PRSD-SA5C-4 (0-12")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	36- 48	48- 52	0- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.061 U	0.075 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.061 U	0.075 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.061 U	0.075 U	0.045 U
8082	AROCLOR 1242	mg/kg	7.1	0.098	0.42
8082	AROCLOR 1248	mg/kg	0.061 U	0.075 U	0.045 U
8082	AROCLOR 1254	mg/kg	1.2	0.075 U	0.12
8082	AROCLOR 1260	mg/kg	0.061 U	0.075 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	8.3	0.098	0.54

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-4	PRSD-SA5C-4	PRSD-SA5C-4
		Field Sample ID	PRSD-SA5C-4 (12-24")	PRSD-SA5C-4 (24-36")	PRSD-SA5C-4 (36-41")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	12- 24	24- 36	36- 41
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.046 U	0.051 U	0.065 U
8082	AROCLOR 1221	mg/kg	0.046 U	0.051 U	0.065 U
8082	AROCLOR 1232	mg/kg	0.046 U	0.051 U	0.065 U
8082	AROCLOR 1242	mg/kg	1.1	6.8	0.065 U
8082	AROCLOR 1248	mg/kg	0.046 U	0.051 U	0.065 U
8082	AROCLOR 1254	mg/kg	0.35	1.4	0.065 U
8082	AROCLOR 1260	mg/kg	0.046 U	0.051 U	0.065 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.45	8.2	0 U

**Table E-1**  
**SA5-C Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-5	PRSD-SA5C-5	PRSD-SA5C-5
		Field Sample ID	PRSD-SA5C-5 (0-12")	PRSD-SA5C-5 (12-24")	PRSD-SA5C-5 (24-32")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 32
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.049 U	0.049 U	0.068 U
8082	AROCLOR 1221	mg/kg	0.049 U	0.049 U	0.068 U
8082	AROCLOR 1232	mg/kg	0.049 U	0.049 U	0.068 U
8082	AROCLOR 1242	mg/kg	0.4	1	53 J
8082	AROCLOR 1248	mg/kg	0.049 U	0.049 U	0.068 U
8082	AROCLOR 1254	mg/kg	0.081	0.75	11 J
8082	AROCLOR 1260	mg/kg	0.049 U	0.049 U	0.068 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.481	1.75	64

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-6	PRSD-SA5C-6	PRSD-SA5C-6
		Field Sample ID	PRSD-SA5C-6 (0-12")	PRSD-SA5C-6 (12-24")	PRSD-SA5C-6 (24-36")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 36
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.045 U	0.049 U	0.066 U
8082	AROCLOR 1221	mg/kg	0.045 U	0.049 U	0.066 U
8082	AROCLOR 1232	mg/kg	0.045 U	0.049 U	0.066 U
8082	AROCLOR 1242	mg/kg	0.68	3.7	18
8082	AROCLOR 1248	mg/kg	0.045 U	0.049 U	0.066 U
8082	AROCLOR 1254	mg/kg	0.16	0.68	2.7
8082	AROCLOR 1260	mg/kg	0.045 U	0.049 U	0.066 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.84	4.38	20.7

**Table E-1**  
**SA5-C Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5C-6	PRSD-SA5C-6	PRSD-SA5C-7
		Field Sample ID	PRSD-SA5C-6 (36-47")	PRSD-SA5C-6 (47-51")	PRSD-SA5C-7 (0-14")
		Sampling Date	7/27/2012	7/27/2012	7/27/2012
		Depth Interval (inches bss)	36- 47	47- 51	0- 14
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.077 U	0.088 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.077 U	0.088 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.077 U	0.088 U	0.045 U
8082	AROCLOR 1242	mg/kg	170 J	260 J	0.11
8082	AROCLOR 1248	mg/kg	0.077 U	0.088 U	0.045 U
8082	AROCLOR 1254	mg/kg	18 J	34 J	0.045 U
8082	AROCLOR 1260	mg/kg	0.077 U	0.088 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	188	294	0.11

Notes:

bss = Below sediment surface

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-01	PREC-SA5C-02	PREC-SA5C-03	PREC-SA5C-04	PREC-SA5C-05	PREC-SA5C-06
		Field Sample ID	PREC-SA5C-01-091312	PREC-SA5C-02-091312	PREC-SA5C-03-091312	PREC-SA5C-04-091312	PREC-SA5C-05-091312	PREC-SA5C-06-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	ARSENIC	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg dry	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	SILVER	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	mg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-01	PREC-SA5C-02	PREC-SA5C-03	PREC-SA5C-04	PREC-SA5C-05	PREC-SA5C-06
		Field Sample ID	PREC-SA5C-01-091312	PREC-SA5C-02-091312	PREC-SA5C-03-091312	PREC-SA5C-04-091312	PREC-SA5C-05-091312	PREC-SA5C-06-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg dry	NA	NA	NA	NA	NA	NA
8082	AROCOR 1016	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	AROCOR 1221	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	AROCOR 1232	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	AROCOR 1242	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	AROCOR 1248	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	AROCOR 1254	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	AROCOR 1260	mg/kg dry	0.11 U	0.109 U	0.11 U	0.111 U	0.119 U	0.112 U
8082	Total PCBs (Sum of Detections)	mg/kg dry	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA



Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-01	PREC-SA5C-02	PREC-SA5C-03	PREC-SA5C-04	PREC-SA5C-05	PREC-SA5C-06
		Field Sample ID	PREC-SA5C-01-091312	PREC-SA5C-02-091312	PREC-SA5C-03-091312	PREC-SA5C-04-091312	PREC-SA5C-05-091312	PREC-SA5C-06-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-01	PREC-SA5C-02	PREC-SA5C-03	PREC-SA5C-04	PREC-SA5C-05	PREC-SA5C-06
		Field Sample ID	PREC-SA5C-01-091312	PREC-SA5C-02-091312	PREC-SA5C-03-091312	PREC-SA5C-04-091312	PREC-SA5C-05-091312	PREC-SA5C-06-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-01	PREC-SA5C-02	PREC-SA5C-03	PREC-SA5C-04	PREC-SA5C-05	PREC-SA5C-06
		Field Sample ID	PREC-SA5C-01-091312	PREC-SA5C-02-091312	PREC-SA5C-03-091312	PREC-SA5C-04-091312	PREC-SA5C-05-091312	PREC-SA5C-06-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-01	PREC-SA5C-02	PREC-SA5C-03	PREC-SA5C-04	PREC-SA5C-05	PREC-SA5C-06
		Field Sample ID	PREC-SA5C-01-091312	PREC-SA5C-02-091312	PREC-SA5C-03-091312	PREC-SA5C-04-091312	PREC-SA5C-05-091312	PREC-SA5C-06-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg dry	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-07	PREC-SA5C-08	PREC-SA5C-09	PREC-SA5C-10	PREC-SA5C-10	PREC-SA5C-11
		Field Sample ID	PREC-SA5C-07-091312	PREC-SA5C-08-091312	PREC-SA5C-09-091312	PREC-SA5C-10-091312	PREC-SA5C-10-091312-DP	PREC-SA5C-11-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	ARSENIC	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg dry	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	SILVER	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg dry	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ALDRIN	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDRIN	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	mg/kg dry	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	mg/kg dry	NA	NA	NA	NA	NA	NA



Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-07	PREC-SA5C-08	PREC-SA5C-09	PREC-SA5C-10	PREC-SA5C-10	PREC-SA5C-11
		Field Sample ID	PREC-SA5C-07-091312	PREC-SA5C-08-091312	PREC-SA5C-09-091312	PREC-SA5C-10-091312	PREC-SA5C-10-091312-DP	PREC-SA5C-11-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg dry	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	AROCLOR 1221	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	AROCLOR 1232	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	AROCLOR 1242	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	AROCLOR 1248	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	AROCLOR 1254	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	AROCLOR 1260	mg/kg dry	0.11 U	0.113 U	0.109 U	0.108 U	0.108 U	0.11 U
8082	Total PCBs (Sum of Detections)	mg/kg dry	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-07	PREC-SA5C-08	PREC-SA5C-09	PREC-SA5C-10	PREC-SA5C-10	PREC-SA5C-11
		Field Sample ID	PREC-SA5C-07-091312	PREC-SA5C-08-091312	PREC-SA5C-09-091312	PREC-SA5C-10-091312	PREC-SA5C-10-091312-DP	PREC-SA5C-11-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-07	PREC-SA5C-08	PREC-SA5C-09	PREC-SA5C-10	PREC-SA5C-10	PREC-SA5C-11
		Field Sample ID	PREC-SA5C-07-091312	PREC-SA5C-08-091312	PREC-SA5C-09-091312	PREC-SA5C-10-091312	PREC-SA5C-10-091312-DP	PREC-SA5C-11-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIHENYL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-07	PREC-SA5C-08	PREC-SA5C-09	PREC-SA5C-10	PREC-SA5C-10	PREC-SA5C-11
		Field Sample ID	PREC-SA5C-07-091312	PREC-SA5C-08-091312	PREC-SA5C-09-091312	PREC-SA5C-10-091312	PREC-SA5C-10-091312-DP	PREC-SA5C-11-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-07	PREC-SA5C-08	PREC-SA5C-09	PREC-SA5C-10	PREC-SA5C-10	PREC-SA5C-11
		Field Sample ID	PREC-SA5C-07-091312	PREC-SA5C-08-091312	PREC-SA5C-09-091312	PREC-SA5C-10-091312	PREC-SA5C-10-091312-DP	PREC-SA5C-11-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg dry	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg dry	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound



Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-12	PREC-SA5C-Comp1	PREC-SA5C-Comp2	PREC-SA5C-Comp3
		Field Sample ID	PREC-SA5C-12-091312	PREC-SA5C-Composite-01-091312	PREC-SA5C-Composite-02-091312	PREC-SA5C-Composite-03-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
6010B	ALUMINUM	mg/kg dry	NA	7050	6930	7170
6020A	ANTIMONY	mg/kg dry	NA	0.27	0.213 U	0.381
6020A	ARSENIC	mg/kg dry	NA	10.1	10.3	10
6010B	BARIUM	mg/kg dry	NA	101	103	112
6010B	BERYLLIUM	mg/kg dry	NA	0.905 U	0.895 U	0.907 U
6010B	CADMIUM	mg/kg dry	NA	5.42 U	5.36 U	5.43 U
6010B	CALCIUM	mg/kg dry	NA	12700	7810	7790
6010B	CHROMIUM	mg/kg dry	NA	21.4	29.4	27.2
6010B	COBALT	mg/kg dry	NA	4.23	4.27	4.46
6020A	COPPER	mg/kg dry	NA	19	17.8	22.5
6010B	IRON	mg/kg dry	NA	11200	10500	10900
6010B	LEAD	mg/kg dry	NA	101	81.9	113
6010B	MAGNESIUM	mg/kg dry	NA	3650	3280	3130
6020A	MANGANESE	mg/kg dry	NA	732	695	649
7471B	MERCURY	mg/kg dry	NA	0.175	0.134	0.193
6010B	NICKEL	mg/kg dry	NA	10.7	10.5	11
6010B	POTASSIUM	mg/kg dry	NA	786	667	805
6010B	SELENIUM	mg/kg dry	NA	18.1 U	17.9 U	18.1 U
6020A	SILVER	mg/kg dry	NA	0.166	0.213	0.23
6010B	SODIUM	mg/kg dry	NA	181 U	179 U	181 U
6020A	THALLIUM	mg/kg dry	NA	0.215 U	0.213 U	0.218 U
6010B	VANADIUM	mg/kg dry	NA	16.3	16.8	17.1
6010B	ZINC	mg/kg dry	NA	82.8	75.6	114
8081	4,4'-DDD	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	4,4'-DDE	mg/kg dry	NA	0.259 J	0.0562 U	0.056 U
8081	4,4'-DDT	mg/kg dry	NA	0.0718	0.0562 U	0.056 U
8081	ALDRIN	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ALPHA-BHC	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ALPHA-CHLORDANE	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	BETA-BHC	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	CHLORDANE	mg/kg dry	NA	0.109 U	0.112 U	0.112 U
8081	DELTA-BHC	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	DIELDRIN	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ENDOSULFAN I	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ENDOSULFAN II	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ENDOSULFAN SULFATE	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ENDRIN	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ENDRIN ALDEHYDE	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	ENDRIN KETONE	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	GAMMA-BHC (LINDANE)	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	GAMMA-CHLORDANE	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	HEPTACHLOR	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	HEPTACHLOR EPOXIDE	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	HEXACHLOROBENZENE, PEST	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U
8081	METHOXYCHLOR	mg/kg dry	NA	0.0544 U	0.0562 U	0.056 U

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-12	PREC-SA5C-Comp1	PREC-SA5C-Comp2	PREC-SA5C-Comp3
		Field Sample ID	PREC-SA5C-12-091312	PREC-SA5C-Composite-01-091312	PREC-SA5C-Composite-02-091312	PREC-SA5C-Composite-03-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8081	TOXAPHENE	mg/kg dry	NA	0.326 U	0.337 U	0.336 U
8082	AROCLOR 1016	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	AROCLOR 1221	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	AROCLOR 1232	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	AROCLOR 1242	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	AROCLOR 1248	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	AROCLOR 1254	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	AROCLOR 1260	mg/kg dry	0.106 U	0.109 U	0.112 U	0.112 U
8082	Total PCBs (Sum of Detections)	mg/kg dry	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	18	18	9.2 U
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	9.5 U	9.5 U	9.2 U
8151A	2,4-D	µg/kg	NA	9.5 U	9.5 U	9.2 U
8151A	DINOSEB	µg/kg	NA	110 U	110 U	110 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	9.5 U	9.5 U	9.2 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	2-BUTANONE (MEK)	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	2-HEXANONE	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	ACETONE	µg/kg dry	NA	85 U	94.8 U	100 U
8260	ACROLEIN	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	ACRYLONITRILE	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	ALLYL CHLORIDE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	BENZENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	BROMOFORM	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	8.5 U	9.48 U	10 U
8260	CARBON DISULFIDE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	CHLOROBENZENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-12	PREC-SA5C-Comp1	PREC-SA5C-Comp2	PREC-SA5C-Comp3
		Field Sample ID	PREC-SA5C-12-091312	PREC-SA5C-Composite-01-091312	PREC-SA5C-Composite-02-091312	PREC-SA5C-Composite-03-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	CHLOROETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	CHLOROFORM	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	CHLOROMETHANE	µg/kg dry	NA	8.5 U	9.48 U	10 U
8260	CHLOROPRENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	DIBROMOMETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	ETHYL METHACRYLATE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	ETHYLBENZENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	IODOMETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	M,P-XYLENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	METHACRYLONITRILE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	METHYL METHACRYLATE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	METHYLENE CHLORIDE	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	O-XYLENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	42.5 U	47.4 U	50.2 U
8260	STYRENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	TETRACHLOROETHENE	µg/kg dry	NA	4.25 UJ	4.74 UJ	5.02 UJ
8260	TOLUENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	TRICHLOROETHENE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	VINYL ACETATE	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8260	VINYL CHLORIDE	µg/kg dry	NA	1.7 U	1.9 U	2.01 U
8260	XYLENE (TOTAL)	µg/kg dry	NA	4.25 U	4.74 U	5.02 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	1,3-DINITROBENZENE	µg/kg dry	NA	644 U	664 U	658 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-12	PREC-SA5C-Comp1	PREC-SA5C-Comp2	PREC-SA5C-Comp3
		Field Sample ID	PREC-SA5C-12-091312	PREC-SA5C-Composite-01-091312	PREC-SA5C-Composite-02-091312	PREC-SA5C-Composite-03-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	2570 U	2660 U	2630 U
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	644 U	664 U	658 U
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	644 U	664 U	658 U
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	644 U	664 U	658 U
8270	2-CHLOROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	2-METHYLPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	2-NITROANILINE	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2-NITROPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	2-PICOLINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	3&4-METHYLPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	6440 U	6640 U	6580 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	3-NITROANILINE	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	4-AMINOBIPHENYL	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg dry	NA	644 U	664 U	658 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	4-CHLOROANILINE	µg/kg dry	NA	644 U	664 U	658 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg dry	NA	644 U	664 U	658 U
8270	4-NITROANILINE	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	ACENAPHTHENE	µg/kg dry	NA	644 U	664 U	658 U
8270	ACENAPHTHYLENE	µg/kg dry	NA	644 U	664 U	658 U
8270	ACETOPHENONE	µg/kg dry	NA	644 U	664 U	658 U
8270	ANILINE	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	ANTHRACENE	µg/kg dry	NA	644 U	664 U	658 U
8270	BENZIDINE	µg/kg dry	NA	6440 U	6640 U	6580 U
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	644 U	664 U	658 U
8270	BENZO[A]PYRENE	µg/kg dry	NA	644 U	664 U	658 U
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	775	684	658 U
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	644 U	664 U	658 U
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	644 U	664 U	658 U
8270	BENZYL ALCOHOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	644 U	664 U	658 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	644 U	664 U	658 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	644 U	664 U	658 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	644 U	664 U	658 U
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	644 U	664 U	658 U

Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-12	PREC-SA5C-Comp1	PREC-SA5C-Comp2	PREC-SA5C-Comp3
		Field Sample ID	PREC-SA5C-12-091312	PREC-SA5C-Composite-01-091312	PREC-SA5C-Composite-02-091312	PREC-SA5C-Composite-03-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg dry	NA	644 U	664 U	658 U
8270	CHLOROBENZILATE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	CHRYSENE	µg/kg dry	NA	644 U	664 U	658 U
8270	DIALATE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	644 U	664 U	658 U
8270	DIBENZOFURAN	µg/kg dry	NA	644 U	664 U	658 U
8270	DIETHYL PHTHALATE	µg/kg dry	NA	644 U	664 U	658 U
8270	DIMETHOATE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	644 U	664 U	658 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	644 U	664 U	658 U
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	644 U	664 U	658 U
8270	DIPHENYLAMINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	DISULFOTON	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	FAMPHUR	µg/kg dry	NA	1440 U	1490 U	1480 U
8270	FLUORANTHENE	µg/kg dry	NA	850	688	663
8270	FLUORENE	µg/kg dry	NA	644 U	664 U	658 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	2570 U	2660 U	2630 U
8270	HEXACHLOROETHANE	µg/kg dry	NA	644 U	664 U	658 U
8270	HEXACHLOROPROPENE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	644 U	664 U	658 U
8270	ISODRIN	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	ISOPHORONE	µg/kg dry	NA	644 U	664 U	658 U
8270	ISOSAFROLE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	KEPONE, SVOC	µg/kg dry	NA	32800 U	33900 U	33600 U
8270	METHAPYRILENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	METHYL METHANESULFONATE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	METHYL PARATHION	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	644 U	664 U	658 U
8270	NITROBENZENE	µg/kg dry	NA	644 U	664 U	658 U
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	4330 U	4470 U	4430 U
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	644 U	664 U	658 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	644 U	664 U	658 U
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	644 U	664 U	658 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	O-TOLUIDINE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	PARATHION	µg/kg dry	NA	2890 U	2980 U	2950 U



Table E-2  
SA5-C Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5C-12	PREC-SA5C-Comp1	PREC-SA5C-Comp2	PREC-SA5C-Comp3
		Field Sample ID	PREC-SA5C-12-091312	PREC-SA5C-Composite-01-091312	PREC-SA5C-Composite-02-091312	PREC-SA5C-Composite-03-091312
		Sampling Date	9/13/2012	9/13/2012	9/13/2012	9/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	PHENACETIN	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	PHENANTHRENE	µg/kg dry	NA	644 U	664 U	658 U
8270	PHENOL	µg/kg dry	NA	1290 U	1330 U	1320 U
8270	PHORATE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	PRONAMIDE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	PYRENE	µg/kg dry	NA	644 U	664 U	658 U
8270	PYRIDINE	µg/kg dry	NA	644 U	664 U	658 U
8270	SAFROLE	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	SULFOTEPP	µg/kg dry	NA	2890 U	2980 U	2950 U
8270	THIONAZIN	µg/kg dry	NA	2890 U	2980 U	2950 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5C-1	CSD-SA5C-2	CSD-SA5C-3	CSD-SA5C-4	CSD-SA5C-5	CSD-SA5C-6	CSD-SA5C-6
		Field Sample ID	CSD-SA5C-1-092712	CSD-SA5C-2-092712	CSD-SA5C-3-092812	CSD-SA5C-4-100112	CSD-SA5C-5-100212	CSD-SA5C-6-100312	CSD-SA5C-6-100312-DP
		Sampling Date	9/27/2012	9/27/2012	9/28/2012	10/1/2012	10/2/2012	10/3/2012	10/3/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8082	AROCLOR 1016	mg/kg	0.048 U	0.046 U	0.046 U	0.05 U	0.051 U	0.05 U	0.047 U
8082	AROCLOR 1221	mg/kg	0.048 U	0.046 U	0.046 U	0.05 U	0.051 U	0.05 U	0.047 U
8082	AROCLOR 1232	mg/kg	0.048 U	0.046 U	0.046 U	0.05 U	0.051 U	0.05 U	0.047 U
8082	AROCLOR 1242	mg/kg	0.82	0.058	0.07	0.19	0.57	0.84	0.48
8082	AROCLOR 1248	mg/kg	0.048 U	0.046 U	0.046 U	0.05 U	0.051 U	0.05 U	0.047 U
8082	AROCLOR 1254	mg/kg	0.11	0.046 U	0.046 U	0.07	0.092	0.19	0.12
8082	AROCLOR 1260	mg/kg	0.048 U	0.046 U	0.046 U	0.05 U	0.051 U	0.05 U	0.047 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.93	0.058	0.07	0.26	0.662	1.03	0.6
SW 6010B	ALUMINUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6020A	ANTIMONY	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6020A	ARSENIC	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	BARIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	BERYLLIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	CADMIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	CALCIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	CHROMIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	COBALT	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6020A	COPPER	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	IRON	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	LEAD	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	MAGNESIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6020A	MANGANESE	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 7471A	MERCURY	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	NICKEL	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	POTASSIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	SELENIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6020A	SILVER	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	SODIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6020A	THALLIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	VANADIUM	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 6010B	ZINC	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 8015B	DRO (C10-C20)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 8015B	DRO (C20-C34)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 8015B	ERO (C8-C36)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
SW 8015B	GRO (C5-C12)	mg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5C-1	CSD-SA5C-2	CSD-SA5C-3	CSD-SA5C-4	CSD-SA5C-5	CSD-SA5C-6	CSD-SA5C-6
		Field Sample ID	CSD-SA5C-1-092712	CSD-SA5C-2-092712	CSD-SA5C-3-092812	CSD-SA5C-4-100112	CSD-SA5C-5-100212	CSD-SA5C-6-100312	CSD-SA5C-6-100312-DP
		Sampling Date	9/27/2012	9/27/2012	9/28/2012	10/1/2012	10/2/2012	10/3/2012	10/3/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5C-1	CSD-SA5C-2	CSD-SA5C-3	CSD-SA5C-4	CSD-SA5C-5	CSD-SA5C-6	CSD-SA5C-6
		Field Sample ID	CSD-SA5C-1-092712	CSD-SA5C-2-092712	CSD-SA5C-3-092812	CSD-SA5C-4-100112	CSD-SA5C-5-100212	CSD-SA5C-6-100312	CSD-SA5C-6-100312-DP
		Sampling Date	9/27/2012	9/27/2012	9/28/2012	10/1/2012	10/2/2012	10/3/2012	10/3/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5C-1	CSD-SA5C-2	CSD-SA5C-3	CSD-SA5C-4	CSD-SA5C-5	CSD-SA5C-6	CSD-SA5C-6
		Field Sample ID	CSD-SA5C-1-092712	CSD-SA5C-2-092712	CSD-SA5C-3-092812	CSD-SA5C-4-100112	CSD-SA5C-5-100212	CSD-SA5C-6-100312	CSD-SA5C-6-100312-DP
		Sampling Date	9/27/2012	9/27/2012	9/28/2012	10/1/2012	10/2/2012	10/3/2012	10/3/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	KEPONE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5C-1	CSD-SA5C-2	CSD-SA5C-3	CSD-SA5C-4	CSD-SA5C-5	CSD-SA5C-6	CSD-SA5C-6
		Field Sample ID	CSD-SA5C-1-092712	CSD-SA5C-2-092712	CSD-SA5C-3-092812	CSD-SA5C-4-100112	CSD-SA5C-5-100212	CSD-SA5C-6-100312	CSD-SA5C-6-100312-DP
		Sampling Date	9/27/2012	9/27/2012	9/28/2012	10/1/2012	10/2/2012	10/3/2012	10/3/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg dry	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg dry	NA	NA	NA	NA	NA	NA	NA

Notes:  
bss = Below sediment surface  
DRO = Diesel-range organics  
ERO = Extended-range organics  
GRO = Gasoline-range organics  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit



Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Verification	Verification	Investigative
		Location ID	CSD-SA5C-1	CSD-SA5C-4	INV-SA5C-1
		Field Sample ID	CSD-SA5C-1(36")-092512	CSD-SA5C-4 (56")-100112	INV-SA5C-1(WestBank)-092712
		Sampling Date	9/25/2012	10/1/2012	9/27/2012
		Depth Interval (inches bss)	0- 36	0- 56	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.052 U	0.065 U	0.94 U
8082	AROCLOR 1221	mg/kg	0.052 U	0.065 U	0.94 U
8082	AROCLOR 1232	mg/kg	0.052 U	0.065 U	0.94 U
8082	AROCLOR 1242	mg/kg	3.4	28	0.94 U
8082	AROCLOR 1248	mg/kg	0.052 U	0.065 U	0.94 U
8082	AROCLOR 1254	mg/kg	0.57	3.4	0.94 U
8082	AROCLOR 1260	mg/kg	0.052 U	0.065 U	0.94 U
8082	Total PCBs (Sum of Detections)	mg/kg	3.97	31.4	18 U
SW 6010B	ALUMINUM	mg/kg dry	NA	NA	10500
SW 6020A	ANTIMONY	mg/kg dry	NA	NA	1.41 J
SW 6020A	ARSENIC	mg/kg dry	NA	NA	147
SW 6010B	BARIUM	mg/kg dry	NA	NA	330
SW 6010B	BERYLLIUM	mg/kg dry	NA	NA	1.69 U
SW 6010B	CADMIUM	mg/kg dry	NA	NA	10.1 U
SW 6010B	CALCIUM	mg/kg dry	NA	NA	16500
SW 6010B	CHROMIUM	mg/kg dry	NA	NA	23.7
SW 6010B	COBALT	mg/kg dry	NA	NA	6.73 U
SW 6020A	COPPER	mg/kg dry	NA	NA	150 J
SW 6010B	IRON	mg/kg dry	NA	NA	27300
SW 6010B	LEAD	mg/kg dry	NA	NA	256
SW 6010B	MAGNESIUM	mg/kg dry	NA	NA	5110
SW 6020A	MANGANESE	mg/kg dry	NA	NA	234 J
SW 7471A	MERCURY	mg/kg dry	NA	NA	1.65 J
SW 6010B	NICKEL	mg/kg dry	NA	NA	18
SW 6010B	POTASSIUM	mg/kg dry	NA	NA	1010
SW 6010B	SELENIUM	mg/kg dry	NA	NA	33.7 U
SW 6020A	SILVER	mg/kg dry	NA	NA	0.326
SW 6010B	SODIUM	mg/kg dry	NA	NA	386
SW 6020A	THALLIUM	mg/kg dry	NA	NA	0.404
SW 6010B	VANADIUM	mg/kg dry	NA	NA	23.5
SW 6010B	ZINC	mg/kg dry	NA	NA	259
SW 8015B	DRO (C10-C20)	mg/kg dry	NA	NA	379 U
SW 8015B	DRO (C20-C34)	mg/kg dry	NA	NA	1080 J
SW 8015B	ERO (C8-C36)	mg/kg dry	NA	NA	968 J
SW 8015B	GRO (C5-C12)	mg/kg dry	NA	NA	102 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	18 U
8260	1,1,1-TRICHLOROETHANE	µg/kg dry	NA	NA	18 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg dry	NA	NA	18 UJ
8260	1,1,2-TRICHLOROETHANE	µg/kg dry	NA	NA	18 UJ
8260	1,1-DICHLOROETHANE	µg/kg dry	NA	NA	18 U
8260	1,1-DICHLOROETHENE	µg/kg dry	NA	NA	18 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg dry	NA	NA	18 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg dry	NA	NA	18 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg dry	NA	NA	18 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg dry	NA	NA	18 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	18 UJ
8260	1,2-DICHLOROETHANE	µg/kg dry	NA	NA	18 UJ
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg dry	NA	NA	18 U

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Verification	Verification	Investigative
		Location ID	CSD-SA5C-1	CSD-SA5C-4	INV-SA5C-1
		Field Sample ID	CSD-SA5C-1(36")-092512	CSD-SA5C-4 (56")-100112	INV-SA5C-1(WestBank)-092712
		Sampling Date	9/25/2012	10/1/2012	9/27/2012
		Depth Interval (inches bss)	0- 36	0- 56	NA
8260	1,2-DICHLOROPROPANE	µg/kg dry	NA	NA	18 UJ
8260	1,3-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	18 UJ
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg dry	NA	NA	18 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg dry	NA	NA	18 UJ
8260	2-BUTANONE (MEK)	µg/kg dry	NA	NA	180 U
8260	2-HEXANONE	µg/kg dry	NA	NA	180 UJ
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg dry	NA	NA	180 U
8260	ACETONE	µg/kg dry	NA	NA	361 U
8260	ACROLEIN	µg/kg dry	NA	NA	180 U
8260	ACRYLONITRILE	µg/kg dry	NA	NA	180 UJ
8260	ALLYL CHLORIDE	µg/kg dry	NA	NA	18 U
8260	BENZENE	µg/kg dry	NA	NA	18 UJ
8260	BROMODICHLOROMETHANE	µg/kg dry	NA	NA	18 UJ
8260	BROMOFORM	µg/kg dry	NA	NA	18 UJ
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg dry	NA	NA	36.1 U
8260	CARBON DISULFIDE	µg/kg dry	NA	NA	18 U
8260	CARBON TETRACHLORIDE	µg/kg dry	NA	NA	18 UJ
8260	CHLOROBENZENE	µg/kg dry	NA	NA	18 UJ
8260	CHLORODIBROMOMETHANE	µg/kg dry	NA	NA	18 UJ
8260	CHLOROETHANE	µg/kg dry	NA	NA	18 U
8260	CHLOROFORM	µg/kg dry	NA	NA	18 UJ
8260	CHLOROMETHANE	µg/kg dry	NA	NA	36.1 U
8260	CHLOROPRENE	µg/kg dry	NA	NA	18 UJ
8260	CIS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	18 UJ
8260	DIBROMOMETHANE	µg/kg dry	NA	NA	18 UJ
8260	DICHLORODIFLUOROMETHANE	µg/kg dry	NA	NA	18 U
8260	ETHYL METHACRYLATE	µg/kg dry	NA	NA	18 UJ
8260	ETHYLBENZENE	µg/kg dry	NA	NA	18 UJ
8260	HEXACHLOROBUTADIENE, VOC	µg/kg dry	NA	NA	18 UJ
8260	IODOMETHANE	µg/kg dry	NA	NA	18 U
8260	M,P-XYLENE	µg/kg dry	NA	NA	18 U
8260	METHACRYLONITRILE	µg/kg dry	NA	NA	18 UJ
8260	METHYL METHACRYLATE	µg/kg dry	NA	NA	18 UJ
8260	METHYLENE CHLORIDE	µg/kg dry	NA	NA	180 U
8260	O-XYLENE	µg/kg dry	NA	NA	18 U
8260	PENTACHLOROETHANE	µg/kg dry	NA	NA	18 UJ
8260	PROPIONITRILE	µg/kg dry	NA	NA	180 U
8260	STYRENE	µg/kg dry	NA	NA	18 U
8260	TETRACHLOROETHENE	µg/kg dry	NA	NA	18 UJ
8260	TOLUENE	µg/kg dry	NA	NA	18 UJ
8260	TRANS-1,2-DICHLOROETHENE	µg/kg dry	NA	NA	18 UJ
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg dry	NA	NA	18 UJ
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg dry	NA	NA	18 UJ
8260	TRICHLOROETHENE	µg/kg dry	NA	NA	18 UJ
8260	TRICHLOROFLUOROMETHANE	µg/kg dry	NA	NA	18 U
8260	VINYL ACETATE	µg/kg dry	NA	NA	18 UJ
8260	VINYL CHLORIDE	µg/kg dry	NA	NA	7.21 U

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Verification	Verification	Investigative
		Location ID	CSD-SA5C-1	CSD-SA5C-4	INV-SA5C-1
		Field Sample ID	CSD-SA5C-1(36")-092512	CSD-SA5C-4 (56")-100112	INV-SA5C-1(WestBank)-092712
		Sampling Date	9/25/2012	10/1/2012	9/27/2012
		Depth Interval (inches bss)	0- 36	0- 56	NA
8260	XYLENE (TOTAL)	µg/kg dry	NA	NA	18 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg dry	NA	NA	10800 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	1,3,5-TRINITROBENZENE	µg/kg dry	NA	NA	16300 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	1,3-DINITROBENZENE	µg/kg dry	NA	NA	2410 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	1,4-NAPHTHOQUINONE	µg/kg dry	NA	NA	10800 U
8270	1,4-PHENYLENEDIAMINE	µg/kg dry	NA	NA	16300 U
8270	1-NAPHTHYLAMINE	µg/kg dry	NA	NA	16300 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg dry	NA	NA	4830 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg dry	NA	NA	4830 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg dry	NA	NA	4830 U
8270	2,4-DICHLOROPHENOL	µg/kg dry	NA	NA	4830 U
8270	2,4-DIMETHYLPHENOL	µg/kg dry	NA	NA	4830 U
8270	2,4-DINITROPHENOL	µg/kg dry	NA	NA	9660 U
8270	2,4-DINITROTOLUENE	µg/kg dry	NA	NA	2410 U
8270	2,6-DICHLOROPHENOL	µg/kg dry	NA	NA	4830 U
8270	2,6-DINITROTOLUENE	µg/kg dry	NA	NA	2410 U
8270	2-ACETYLAMINOFLUORENE	µg/kg dry	NA	NA	10800 U
8270	2-CHLORONAPHTHALENE	µg/kg dry	NA	NA	2410 U
8270	2-CHLOROPHENOL	µg/kg dry	NA	NA	4830 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	2-METHYLPHENOL	µg/kg dry	NA	NA	4830 U
8270	2-NAPHTHYLAMINE	µg/kg dry	NA	NA	16300 U
8270	2-NITROANILINE	µg/kg dry	NA	NA	4830 U
8270	2-NITROPHENOL	µg/kg dry	NA	NA	4830 U
8270	3&4-METHYLPHENOL	µg/kg dry	NA	NA	4830 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg dry	NA	NA	24100 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg dry	NA	NA	10800 U
8270	3-METHYLCHOLANTHRENE	µg/kg dry	NA	NA	16300 U
8270	3-NITROANILINE	µg/kg dry	NA	NA	4830 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg dry	NA	NA	4830 U
8270	4-AMINOBIPHENYL	µg/kg dry	NA	NA	10800 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg dry	NA	NA	2410 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg dry	NA	NA	4830 U
8270	4-CHLOROANILINE	µg/kg dry	NA	NA	2410 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg dry	NA	NA	2410 U
8270	4-NITROANILINE	µg/kg dry	NA	NA	4830 U
8270	4-NITROPHENOL, SVOC	µg/kg dry	NA	NA	4830 U
8270	5-NITRO-O-TOLUIDINE	µg/kg dry	NA	NA	10800 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg dry	NA	NA	10800 U
8270	ACENAPHTHENE	µg/kg dry	NA	NA	2410 U
8270	ACENAPHTHYLENE	µg/kg dry	NA	NA	2410 U
8270	ANILINE	µg/kg dry	NA	NA	4830 U
8270	ANTHRACENE	µg/kg dry	NA	NA	2410 U

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Verification	Verification	Investigative
		Location ID	CSD-SA5C-1	CSD-SA5C-4	INV-SA5C-1
		Field Sample ID	CSD-SA5C-1(36")-092512	CSD-SA5C-4 (56")-100112	INV-SA5C-1(WestBank)-092712
		Sampling Date	9/25/2012	10/1/2012	9/27/2012
		Depth Interval (inches bss)	0- 36	0- 56	NA
8270	BENZIDINE	µg/kg dry	NA	NA	24100 U
8270	BENZO(A)ANTHRACENE	µg/kg dry	NA	NA	2410 U
8270	BENZO[A]PYRENE	µg/kg dry	NA	NA	2410 U
8270	BENZO[B]FLUORANTHENE	µg/kg dry	NA	NA	2410 U
8270	BENZO[G,H,I]PERYLENE	µg/kg dry	NA	NA	2410 U
8270	BENZO[K]FLUORANTHENE	µg/kg dry	NA	NA	2410 U
8270	BENZYL ALCOHOL	µg/kg dry	NA	NA	4830 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg dry	NA	NA	2410 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg dry	NA	NA	2410 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg dry	NA	NA	2410 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg dry	NA	NA	2410 U
8270	BUTYL BENZYL PHTHALATE	µg/kg dry	NA	NA	2410 U
8270	CARBAZOLE	µg/kg dry	NA	NA	2410 U
8270	CHLOROBENZILATE	µg/kg dry	NA	NA	10800 U
8270	CHRYSENE	µg/kg dry	NA	NA	2410 U
8270	DIALLATE	µg/kg dry	NA	NA	16300 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg dry	NA	NA	2410 U
8270	DIBENZOFURAN	µg/kg dry	NA	NA	2410 U
8270	DIETHYL PHTHALATE	µg/kg dry	NA	NA	2410 U
8270	DIMETHOATE	µg/kg dry	NA	NA	10800 U
8270	DIMETHYL PHTHALATE	µg/kg dry	NA	NA	2410 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg dry	NA	NA	10800 U
8270	DI-N-BUTYL PHTHALATE	µg/kg dry	NA	NA	2410 U
8270	DI-N-OCTYL PHTHALATE	µg/kg dry	NA	NA	2410 U
8270	DIPHENYLAMINE	µg/kg dry	NA	NA	10800 U
8270	DISULFOTON	µg/kg dry	NA	NA	10800 U
8270	ETHYL METHANESULFONATE	µg/kg dry	NA	NA	10800 U
8270	FAMPHUR	µg/kg dry	NA	NA	5420 U
8270	FLUORANTHENE	µg/kg dry	NA	NA	2410 U
8270	FLUORENE	µg/kg dry	NA	NA	2410 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg dry	NA	NA	9660 U
8270	HEXACHLOROETHANE	µg/kg dry	NA	NA	2410 U
8270	HEXACHLOROPROPENE	µg/kg dry	NA	NA	16300 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg dry	NA	NA	2410 U
8270	ISODRIN	µg/kg dry	NA	NA	16300 U
8270	ISOPHORONE	µg/kg dry	NA	NA	2410 U
8270	ISOSAFROLE	µg/kg dry	NA	NA	10800 U
8270	KEPONE, SVOC	µg/kg dry	NA	NA	123000 U
8270	METHAPYRILENE	µg/kg dry	NA	NA	10800 U
8270	METHYL METHANESULFONATE	µg/kg dry	NA	NA	10800 U
8270	METHYL PARATHION	µg/kg dry	NA	NA	10800 U
8270	NAPHTHALENE, SVOC	µg/kg dry	NA	NA	2410 U
8270	NITROBENZENE	µg/kg dry	NA	NA	2410 U
8270	N-NITROSODIETHYLAMINE	µg/kg dry	NA	NA	16300 U
8270	N-NITROSODIMETHYLAMINE	µg/kg dry	NA	NA	2410 U

Table E-3  
SA5-C Confirmation, Verification, and Investigative Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Verification	Verification	Investigative
		Location ID	CSD-SA5C-1	CSD-SA5C-4	INV-SA5C-1
		Field Sample ID	CSD-SA5C-1(36'')-092512	CSD-SA5C-4 (56'')-100112	INV-SA5C-1(WestBank)-092712
		Sampling Date	9/25/2012	10/1/2012	9/27/2012
		Depth Interval (inches bss)	0- 36	0- 56	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg dry	NA	NA	10800 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg dry	NA	NA	2410 U
8270	N-NITROSODIPHENYLAMINE	µg/kg dry	NA	NA	2410 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg dry	NA	NA	10800 U
8270	N-NITROSOMORPHOLINE	µg/kg dry	NA	NA	10800 U
8270	N-NITROSOPIPERIDINE	µg/kg dry	NA	NA	10800 U
8270	N-NITROSOPYRROLIDINE	µg/kg dry	NA	NA	10800 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg dry	NA	NA	10800 U
8270	O-TOLUIDINE	µg/kg dry	NA	NA	10800 U
8270	PARATHION	µg/kg dry	NA	NA	10800 U
8270	PENTACHLOROBENZENE	µg/kg dry	NA	NA	10800 U
8270	PENTACHLORONITROBENZENE	µg/kg dry	NA	NA	10800 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg dry	NA	NA	4830 U
8270	PHENACETIN	µg/kg dry	NA	NA	10800 U
8270	PHENANTHRENE	µg/kg dry	NA	NA	2410 U
8270	PHENOL	µg/kg dry	NA	NA	4830 U
8270	PHORATE	µg/kg dry	NA	NA	10800 U
8270	PRONAMIDE	µg/kg dry	NA	NA	10800 U
8270	PYRENE	µg/kg dry	NA	NA	2410 U
8270	PYRIDINE	µg/kg dry	NA	NA	2410 U
8270	SAFROLE	µg/kg dry	NA	NA	10800 U
8270	SULFOTEPP	µg/kg dry	NA	NA	10800 U
8270	THIONAZIN	µg/kg dry	NA	NA	10800 U

Notes:  
bss = Below sediment surface  
DRO = Diesel-range organics  
ERO = Extended-range organics  
GRO = Gasoline-range organics  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-01	PSTC-SA5C-02	PSTC-SA5C-03	PSTC-SA5C-04	PSTC-SA5C-05	PSTC-SA5C-06
		Field Sample ID	PSTC-SA5C-01-101212	PSTC-SA5C-02-101212	PSTC-SA5C-03-101212	PSTC-SA5C-04-101212	PSTC-SA5C-05-101212	PSTC-SA5C-06-101212
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8082	AROCLOR 1016	mg/kg	0.12 UJ	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	AROCLOR 1221	mg/kg	0.12 U	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	AROCLOR 1232	mg/kg	0.12 U	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	AROCLOR 1242	mg/kg	0.12 U	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	AROCLOR 1248	mg/kg	0.12 U	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	AROCLOR 1254	mg/kg	0.12 U	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	AROCLOR 1260	mg/kg	0.12 UJ	0.12 U	0.116 U	0.127 UJ	0.131 U	0.126 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
6010B	ALUMINUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	µg/kg	NA	NA	NA	NA	NA	NA
6020	ARSENIC	µg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	µg/kg	NA	NA	NA	NA	NA	NA
6020	COPPER	µg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	µg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	µg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	MANGANESE	µg/kg	NA	NA	NA	NA	NA	NA
7471	MERCURY	µg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	µg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	SILVER	µg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	THALLIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA



**Table E-4**  
**SA5-C Post-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-01	PSTC-SA5C-02	PSTC-SA5C-03	PSTC-SA5C-04	PSTC-SA5C-05	PSTC-SA5C-06
		Field Sample ID	PSTC-SA5C-01-101212	PSTC-SA5C-02-101212	PSTC-SA5C-03-101212	PSTC-SA5C-04-101212	PSTC-SA5C-05-101212	PSTC-SA5C-06-101212
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	µg/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA
8151	4-NITROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA
8151	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151	MCPA	µg/kg	NA	NA	NA	NA	NA	NA
8151	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA

**Table E-4**  
**SA5-C Post-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-01	PSTC-SA5C-02	PSTC-SA5C-03	PSTC-SA5C-04	PSTC-SA5C-05	PSTC-SA5C-06
		Field Sample ID	PSTC-SA5C-01-101212	PSTC-SA5C-02-101212	PSTC-SA5C-03-101212	PSTC-SA5C-04-101212	PSTC-SA5C-05-101212	PSTC-SA5C-06-101212
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-01	PSTC-SA5C-02	PSTC-SA5C-03	PSTC-SA5C-04	PSTC-SA5C-05	PSTC-SA5C-06
		Field Sample ID	PSTC-SA5C-01-101212	PSTC-SA5C-02-101212	PSTC-SA5C-03-101212	PSTC-SA5C-04-101212	PSTC-SA5C-05-101212	PSTC-SA5C-06-101212
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA

Notes:

µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
NA = Not analyzed or applicable  
mg/kg = Milligram per kilogram  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-07	PSTC-SA5C-08	PSTC-SA5C-09	PSTC-SA5C-10	PSTC-SA5C-11	PSTC-SA5C-11
		Field Sample ID	PSTC-SA5C-07-101212	PSTC-SA5C-08-101212	PSTC-SA5C-09-101212	PSTC-SA5C-10-101212	PSTC-SA5C-11-101212	PSTC-SA5C-11-101212-DP
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8082	AROCLOR 1016	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	AROCLOR 1221	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	AROCLOR 1232	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	AROCLOR 1242	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	AROCLOR 1248	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	AROCLOR 1254	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	AROCLOR 1260	mg/kg	0.128 U	0.126 U	0.121 U	0.12 UJ	0.121 U	0.122 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
6010B	ALUMINUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	ANTIMONY	µg/kg	NA	NA	NA	NA	NA	NA
6020	ARSENIC	µg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	µg/kg	NA	NA	NA	NA	NA	NA
6020	COPPER	µg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	µg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	µg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	MANGANESE	µg/kg	NA	NA	NA	NA	NA	NA
7471	MERCURY	µg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	µg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	SILVER	µg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	µg/kg	NA	NA	NA	NA	NA	NA
6020	THALLIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	µg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-07	PSTC-SA5C-08	PSTC-SA5C-09	PSTC-SA5C-10	PSTC-SA5C-11	PSTC-SA5C-11
		Field Sample ID	PSTC-SA5C-07-101212	PSTC-SA5C-08-101212	PSTC-SA5C-09-101212	PSTC-SA5C-10-101212	PSTC-SA5C-11-101212	PSTC-SA5C-11-101212-DP
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEXACHLOROBENZENE, PEST	µg/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA
8151	4-NITROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8151	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA
8151	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA
8151	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA
8151	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151	MCPA	µg/kg	NA	NA	NA	NA	NA	NA
8151	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA

**Table E-4**  
**SA5-C Post-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-07	PSTC-SA5C-08	PSTC-SA5C-09	PSTC-SA5C-10	PSTC-SA5C-11	PSTC-SA5C-11
		Field Sample ID	PSTC-SA5C-07-101212	PSTC-SA5C-08-101212	PSTC-SA5C-09-101212	PSTC-SA5C-10-101212	PSTC-SA5C-11-101212	PSTC-SA5C-11-101212-DP
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA



Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-07	PSTC-SA5C-08	PSTC-SA5C-09	PSTC-SA5C-10	PSTC-SA5C-11	PSTC-SA5C-11
		Field Sample ID	PSTC-SA5C-07-101212	PSTC-SA5C-08-101212	PSTC-SA5C-09-101212	PSTC-SA5C-10-101212	PSTC-SA5C-11-101212	PSTC-SA5C-11-101212-DP
		Sampling Date	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA

Notes:

µg/kg = Microgram per kilogram

ID = Identification

J = Estimated result

NA = Not analyzed or applicable

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

SVOC = Semivolatile organic compound

U = Undetected at specified reporting

UJ = Undetected at specified estimate

VOC = Volatile organic compound

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-12	PSTC-SA5C-COMP-01	PSTC-SA5C-COMP-02	PSTC-SA5C-COMP-03
		Field Sample ID	PSTC-SA5C-12-101212	PSTC-SA5C-Composite-01-101212	PSTC-SA5C-Composite-02-101212	PSTC-SA5C-Composite-03-101212
		Sampling Date	10/13/2012	10/13/2012	10/13/2012	10/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	AROCLOR 1221	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	AROCLOR 1232	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	AROCLOR 1242	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	AROCLOR 1248	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	AROCLOR 1254	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	AROCLOR 1260	mg/kg	0.121 U	0.12 U	0.129 U	0.12 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U
6010B	ALUMINUM	µg/kg	NA	5380000	7130000	5500000
6020	ANTIMONY	µg/kg	NA	231 U	250 U	317
6020	ARSENIC	µg/kg	NA	7750	9600	7710
6010B	BARIUM	µg/kg	NA	71300 J	102000	91100
6010B	BERYLLIUM	µg/kg	NA	988 U	1070 U	987 U
6010B	CADMIUM	µg/kg	NA	5910 U	6410 U	5910 U
6010B	CALCIUM	µg/kg	NA	32400000	9660000	15800000
6010B	CHROMIUM	µg/kg	NA	19600	34000	22000
6010B	COBALT	µg/kg	NA	3940 U	4750	3940 U
6020	COPPER	µg/kg	NA	15300	16800	20800
6010B	IRON	µg/kg	NA	11400000	12500000	10000000
6010B	LEAD	µg/kg	NA	76400 J	78200	76100
6010B	MAGNESIUM	µg/kg	NA	4260000	3800000	6100000
6020	MANGANESE	µg/kg	NA	522000	612000	510000
7471	MERCURY	µg/kg	NA	281	125	158
6010B	NICKEL	µg/kg	NA	8790	10800	8480
6010B	POTASSIUM	µg/kg	NA	740000	860000	738000
6010B	SELENIUM	µg/kg	NA	19700 U	21300 U	19700 U
6020	SILVER	µg/kg	NA	158	221	176
6010B	SODIUM	µg/kg	NA	197000 U	213000 U	197000 U
6020	THALLIUM	µg/kg	NA	231 U	250 U	234 U
6010B	VANADIUM	µg/kg	NA	14600	18200	14000
6010B	ZINC	µg/kg	NA	74200	91000	88800
8081	4,4'-DDD	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	4,4'-DDE	µg/kg	NA	118	64.4 U	60.2 U
8081	4,4'-DDT	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ALDRIN	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ALPHA-BHC	µg/kg	NA	60.5 UJ	64.4 U	60.2 U
8081	ALPHA-CHLORDANE	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	BETA-BHC	µg/kg	NA	60.5 UJ	64.4 U	60.2 U
8081	CHLORDANE	µg/kg	NA	121 U	129 U	120 U
8081	DELTA-BHC	µg/kg	NA	60.5 UJ	64.4 U	60.2 U
8081	DIELDRIN	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ENDOSULFAN I	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ENDOSULFAN II	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ENDOSULFAN SULFATE	µg/kg	NA	60.5 U	64.4 U	60.2 U

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-12	PSTC-SA5C-COMP-01	PSTC-SA5C-COMP-02	PSTC-SA5C-COMP-03
		Field Sample ID	PSTC-SA5C-12-101212	PSTC-SA5C-Composite-01-101212	PSTC-SA5C-Composite-02-101212	PSTC-SA5C-Composite-03-101212
		Sampling Date	10/13/2012	10/13/2012	10/13/2012	10/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ENDRIN ALDEHYDE	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	ENDRIN KETONE	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	60.5 UJ	64.4 U	60.2 U
8081	GAMMA-CHLORDANE	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	HEPTACHLOR	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	HEXACHLOROBENZENE, PEST	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	METHOXYCHLOR	µg/kg	NA	60.5 U	64.4 U	60.2 U
8081	TOXAPHENE	µg/kg	NA	363 U	386 U	361 U
8151	2,4,5-T	µg/kg	NA	9.8 U	11 U	9.9 U
8151	2,4,5-TP (SILVEX)	µg/kg	NA	9.8 U	11 U	9.9 U
8151	2,4-D	µg/kg	NA	9.8 U	11 U	9.9 U
8151	2,4-DB	µg/kg	NA	9.8 U	11 U	9.9 U
8151	4-NITROPHENOL, HERB	µg/kg	NA	39 UJ	42 UJ	39 UJ
8151	DALAPON	µg/kg	NA	390 U	420 U	390 U
8151	DICAMBA	µg/kg	NA	9.8 U	11 U	9.9 U
8151	DICHLOROPROP	µg/kg	NA	9.8 U	11 U	9.9 U
8151	DINOSEB	µg/kg	NA	120 U	130 U	120 U
8151	MCPA	µg/kg	NA	2400 U	2600 U	2400 U
8151	MECOPROP	µg/kg	NA	2400 U	2600 U	2400 U
8151	PENTACHLOROPHENOL, HERB	µg/kg	NA	9.8 UJ	11 UJ	9.9 UJ
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	248 UJ	271 U	1180 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	248 U	271 U	1180 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	248 U	271 U	1180 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	248 U	271 U	1180 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	248 U	271 U	1180 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	248 U	271 U	1180 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	248 U	271 U	1180 U
8260	2-BUTANONE (MEK)	µg/kg	NA	2480 U	2710 U	11800 U
8260	2-HEXANONE	µg/kg	NA	2480 U	2710 U	11800 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	2480 U	2710 U	11800 U

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-12	PSTC-SA5C-COMP-01	PSTC-SA5C-COMP-02	PSTC-SA5C-COMP-03
		Field Sample ID	PSTC-SA5C-12-101212	PSTC-SA5C-Composite-01-101212	PSTC-SA5C-Composite-02-101212	PSTC-SA5C-Composite-03-101212
		Sampling Date	10/13/2012	10/13/2012	10/13/2012	10/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	4950 U	5410 U	23600 U
8260	ACROLEIN	µg/kg	NA	2480 U	2710 U	11800 U
8260	ACRYLONITRILE	µg/kg	NA	2480 U	2710 U	11800 U
8260	BENZENE	µg/kg	NA	248 U	271 U	1180 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	BROMOFORM	µg/kg	NA	248 U	271 U	1180 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	495 U	541 U	2360 U
8260	CARBON DISULFIDE	µg/kg	NA	248 U	271 U	1180 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	248 U	271 U	1180 U
8260	CHLOROBENZENE	µg/kg	NA	248 U	271 U	1180 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	CHLOROETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	CHLOROFORM	µg/kg	NA	248 U	271 U	1180 U
8260	CHLOROMETHANE	µg/kg	NA	495 U	541 U	2360 U
8260	DIBROMOMETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	ETHYLBENZENE	µg/kg	NA	248 U	271 U	1180 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	248 U	271 U	1180 U
8260	METHYLENE CHLORIDE	µg/kg	NA	2480 UJ	2710 U	11800 U
8260	STYRENE	µg/kg	NA	248 U	271 U	1180 U
8260	TETRACHLOROETHENE	µg/kg	NA	248 U	271 U	1180 U
8260	TOLUENE	µg/kg	NA	248 U	271 U	1180 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	248 UJ	271 U	1180 U
8260	TRICHLOROETHENE	µg/kg	NA	248 U	271 U	1180 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	248 U	271 U	1180 U
8260	VINYL ACETATE	µg/kg	NA	248 U	271 U	1180 U
8260	VINYL CHLORIDE	µg/kg	NA	99 U	108 U	471 U
8260	XYLENE (TOTAL)	µg/kg	NA	248 U	271 U	1180 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	711 U	760 U	704 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	711 U	760 U	704 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	711 U	760 U	704 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	711 U	760 U	704 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	355 U	380 U	352 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	355 U	380 U	352 U
8270	2-CHLOROPHENOL	µg/kg	NA	711 U	760 U	704 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	2-NITROPHENOL	µg/kg	NA	711 U	760 U	704 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	3550 U	3800 U	3520 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	711 U	760 U	704 U

Table E-4  
SA5-C Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5C	Slope Area 5C	Slope Area 5C	Slope Area 5C
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5C-12	PSTC-SA5C-COMP-01	PSTC-SA5C-COMP-02	PSTC-SA5C-COMP-03
		Field Sample ID	PSTC-SA5C-12-101212	PSTC-SA5C-Composite-01-101212	PSTC-SA5C-Composite-02-101212	PSTC-SA5C-Composite-03-101212
		Sampling Date	10/13/2012	10/13/2012	10/13/2012	10/13/2012
		Depth Interval (inches bss)	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	355 U	380 U	352 U
8270	ACENAPHTHYLENE	µg/kg	NA	355 U	380 U	352 U
8270	ANILINE	µg/kg	NA	711 U	760 U	704 U
8270	ANTHRACENE	µg/kg	NA	355 U	380 U	352 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	355 U	380 U	352 U
8270	BENZO[A]PYRENE	µg/kg	NA	357	380 U	352 U
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	355 U	380 U	352 U
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	355 U	380 U	352 U
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	355 U	380 U	352 U
8270	BENZYL ALCOHOL	µg/kg	NA	711 U	760 U	704 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	355 U	380 U	352 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	355 U	380 U	352 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	355 U	380 U	352 U
8270	CARBAZOLE	µg/kg	NA	355 U	380 U	352 U
8270	CHRYSENE	µg/kg	NA	355 U	380 U	352 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	355 U	380 U	352 U
8270	DIBENZOFURAN	µg/kg	NA	355 U	380 U	352 U
8270	DIETHYL PHTHALATE	µg/kg	NA	355 U	380 U	352 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	355 U	380 U	352 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	355 U	380 U	352 U
8270	FLUORANTHENE	µg/kg	NA	557	439	409
8270	FLUORENE	µg/kg	NA	355 U	380 U	352 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	1420 U	1520 U	1410 U
8270	HEXACHLOROETHANE	µg/kg	NA	355 U	380 U	352 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	355 U	380 U	352 U
8270	ISOPHORONE	µg/kg	NA	355 U	380 U	352 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	355 U	380 U	352 U
8270	NITROBENZENE	µg/kg	NA	355 U	380 U	352 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	355 U	380 U	352 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	355 U	380 U	352 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	711 U	760 U	704 U
8270	PHENANTHRENE	µg/kg	NA	355 U	380 U	352 U
8270	PHENOL	µg/kg	NA	711 U	760 U	704 U
8270	PYRENE	µg/kg	NA	474	380 U	361
8270	PYRIDINE	µg/kg	NA	355 U	380 U	352 U

Notes:

µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
NA = Not analyzed or applicable  
mg/kg = Milligram per kilogram  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound

U = Undetected at specified reporting  
UJ = Undetected at specified estimate  
VOC = Volatile organic compound

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**ATTACHMENT E-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 1

**Direction:** South

**Subject:** Sediment curtain located near the north end

**Date:** 8/10/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 2

**Direction:** Down

**Subject:** Water discharging from diversion pipes at the north end

**Date:** 8/10/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 3  
**Direction:** Northwest  
**Subject:** Silt fencing along the west bank

**Date:** 9/12/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 4  
**Direction:** North  
**Subject:** Silt fencing along the west bank

**Date:** 9/12/12  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 5  
**Direction:** North  
**Subject:** Silt fencing along the east bank

**Date:** 9/12/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 6  
**Direction:** North  
**Subject:** Silt fencing installed along the east bank

**Date:** 9/12/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 7

**Direction:** North

**Subject:** Installation of the groundwater diversion system

**Date:** 9/13/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 8

**Direction:** Down

**Subject:** Sandbag dam located immediately south of the Vine Street bridge

**Date:** 9/17/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 9  
**Direction:** South  
**Subject:** Set up for excavation activities

**Date:** 9/19/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 10  
**Direction:** North  
**Subject:** Set up for excavation activities

**Date:** 9/20/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 11

**Direction:** South

**Subject:** Groundwater diversion system removing water

**Date:** 9/20/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 12

**Direction:** South

**Subject:** Excavation of contaminated sediment

**Date:** 9/25/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 13  
**Direction:** North  
**Subject:** Excavation of contaminated sediment

**Date:** 9/25/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 14  
**Direction:** Down  
**Subject:** Partially excavated grid

**Date:** 9/25/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 15

**Direction:** North

**Subject:** Partially excavated grids

**Date:** 9/27/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 16

**Direction:** North

**Subject:** Excavation of contaminated sediments

**Date:** 9/28/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 17  
**Direction:** North  
**Subject:** Excavation of contaminated sediments

**Date:** 10/2/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 18  
**Direction:** North  
**Subject:** Restoration activities

**Date:** 10/3/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 19

**Direction:** South

**Subject:** Restoration activities

**Date:** 10/9/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 20

**Direction:** East

**Subject:** Restoration activities

**Date:** 10/10/12

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 21  
**Direction:** Northeast  
**Subject:** Restoration activities on eastern bank

**Date:** 10/11/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C  
**Photograph No.:** 22  
**Direction:** North  
**Subject:** Support area during the initial stages of restoration

**Date:** 10/12/12  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 23

**Direction:** Northwest

**Subject:** Western bank after the installation of coir logs

**Date:** 10/12/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-C

**Photograph No.:** 24

**Direction:** Northeast

**Subject:** Eastern bank after the installation of coir logs

**Date:** 10/12/12

**Photographer:** Michael Browning



## **APPENDIX F**

### **SLOPE AREA 5-A REPORT PORTAGE CREEK AREA SITE**

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## **LIST OF ATTACHMENTS**

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- F-A Photographic Documentation

## **1. SLOPE AREA BACKGROUND**

### **1.1 DESCRIPTION**

SA5-A is located in downtown Kalamazoo, Michigan, and extends northeast from East Dutton Street to East Walnut Street. The approximate geographic coordinates are latitude 42.2855° North and longitude -85.5777° West (**Figure F-1**). The excavation area was divided into seven grids, and encompassed approximately 14,000 ft<sup>2</sup>. However, only Grids 1 - 6 were excavated during the excavation operations. SA5-A is surrounded by light industrial and commercial businesses in an urban setting. Portage Creek flows from southwest to northeast (**Figure F-2**).

### **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from two property owners, providing access to the excavation area from East Dutton Street to East Walnut Street. The property owners granted EPA and its contractors permission to establish an access road, conduct contaminated sediment excavation operations, and restore the properties once the excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

### **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm excavation depths within each removal grid, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal features assessment to document existing Site conditions
- Installation of environmental controls to minimize impact of excavation activities on original Site features
- Clearing and grubbing to allow physical access to excavation area
- Collection of pre-construction soil samples from support area

- Construction of a temporary support area and an access road, as necessary
- Construction of two sheet pile cofferdams
- Installation and operation of a by-pass pumping system and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation, verification, and node sediment samples obtained from excavation grids
- Removal of all environmental controls, access road, pumping systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from support area
- Development of an area-specific restoration plan in coordination with property owners

After the completion of Site set-up activities (i.e., installation of the by-pass pumping and groundwater diversion systems, construction of the upstream and downstream cofferdams, and installation of environmental controls), ERRS excavated TSCA PCB-contaminated sediments from Grids 1, 4, and 5, and non-TSCA PCB-contaminated sediments from Grids 2 - 6. Additional information on excavation activities is provided in Section 3.

A total of twenty-six in-stream sediment core samples from seven different locations, twenty-two pre-construction soil samples (including one duplicate sample), six confirmation sediment samples, three verification sediment samples, six node sediment samples, and twenty-three post-construction soil samples (including one duplicate sample) were collected prior to, during, and after excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 - 4.3.

Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information is provided for these activities in Section 5.2.

## **2. PRE-REMOVAL ACTIVITIES**

This section discusses the pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment F-A** provides photographic documentation of selected pre-removal activities.

### **2.1 PRE-REMOVAL SAMPLING ACTIVITIES**

ERRS and START performed pre-excavation sediment sampling in October 2012. A total of seven sediment cores were collected from Grids 1 - 7. These cores were processed in approximately 12-inch intervals. All analytical data results for pre-removal sediment samples are presented in **Table F-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses that were conducted. The intent of this sampling was to confirm the vertical extent of contamination, to determine if contaminant levels were below TSCA landfill disposal parameters, and to finalize the sediment excavation depths within each grid. The samples were shipped to ALS Global Laboratory of Holland, Michigan, for PCB analysis. The analytical results verified that sediment contaminant levels for PCBs were above the TSCA disposal limits in Grid 1 and in portions of Grids 4 and 5 and would be excavated as TSCA sediment. The analytical results also verified that sediments in Grids 2, 3, and 6 and in portions of Grids 4 and 5 were below TSCA disposal limits and would be excavated as non-TSCA sediment.

### **2.2 PRE-REMOVAL FEATURES ASSESSMENT**

START recorded photographic and video documentation of the pre-removal features, the access road and entrance, and surrounding areas. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal assessment of the in-place constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment, Removal Areas SA5-A and SA5-B” (Fleis and Vandenbrink Engineering Inc., August 2012) is available upon request. This assessment was used to determine if any corrective actions or repairs



were required once excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of an Access Road**

A subcontractor cleared vegetative cover that restricted excavation operations, including overgrown brush, grass, bushes, and trees. The entire eastern and western banks were cleared to allow for grid excavation and load-out activities, placement of groundwater diversion pipes and discharge lines, and construction of the staging area and access road. Attempts were made to preserve the vegetative cover along the western bank in order to protect root mass in the overall work area and to maintain soil stability. An existing parking lot east of the excavation area was prepared by adding 1-inch by 3-inch limestone rock to accommodate a support area, an access road, and a tire wash station. The East Dutton Street bridge, located immediately south of the excavation area, was temporarily closed in accordance with a plan approved by the City of Kalamazoo. The street closure allowed for placement of the by-pass pumping system and fuel cells on the bridge. The access road used during excavation activities was constructed by placing wooden timber mats directly on top of the existing soil located along the eastern creek bank.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-excavation topographic survey of the excavation area in September 2012. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for determining the contaminated sediment excavation surface area within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during the excavation activities. The RTK-GPS equipment ensured that operators were excavating sediment and backfilling each grid to targeted lateral and vertical limits of each grid.

### **2.3.3 Excavation Area Isolation and Dewatering**

Two sheet pile cofferdams were constructed to isolate the excavation area and facilitate dewatering of contaminated sediments. The upstream cofferdam was placed in Grid 1 north of the East Dutton Street bridge, and downstream cofferdam was placed at the boundary of Grids 6 and 7 (**Figure F-2**). To further dry out the creek channel, a series of groundwater extraction wells were installed along the eastern and western banks of excavation grids. The setup consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5-foot centers to an approximate depth of 10 feet below the creek bottom. The sipper wells were then connected to a 6-inch-diameter PVC manifold pipe via flexible tubing. The manifold pipe was connected to 6-inch-diameter vacuum pumps that discharged groundwater onto a rock discharge pad located south of East Walnut Street. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

### **2.3.4 By-Pass Pumping**

The by-pass pumping system consisted of five 12-inch pumps with two 18-inch discharge lines. The system captured creek water upstream of the cofferdam located north of East Dutton Street and discharged the water downstream of the cofferdam located south of East Walnut Street. The water was discharged onto a rock discharge pad consisting of wire gabion baskets filled with large stones. The gabion baskets dissipated the water flow velocity and thus minimized erosion of the creek channel bottom. The staging pad for the pump system was located on the East Dutton Street bridge and was fenced in for security purposes. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed.

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize impact of excavation activities. Many of the environmental controls were specified in the SESC Plan. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.

- Construction Entrance/Exit - Site access was established at an existing parking lot entrance located on the north side of East Dutton Street and along the eastern side of Portage Creek.
- Tire Wash Station - A portable tire wash station was set up in the support area. After each truck was loaded, a crew member sprayed off soil from truck tires as the truck passed through the station prior to exiting the Site. Wash waters were pumped to a temporary storage tank and hauled to the WWTP to maintain suitable storage capacity.
- Paved Surface Management - A power broom was used to perform housekeeping of the adjacent roadways impacted during the excavation activities.
- Dust Control - A water truck applied water for dust control within the support area and at the truck entrance/exit, as necessary.
- Fuel Station - One 300-gallon and two 1,000-gallon temporary fuel tanks with secondary containment were stationed adjacent to the bypass pumps. Fire extinguishers and an emergency spill control kit were placed near the fuel tanks. The spill kit included drums, oil dry, adsorbent pads, and a boom to address small spills.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along both sides of the creek to stabilize sediments and to prevent erosion into the creek channel.
- Upstream Debris Screen - A wire mesh screen was placed across the creek channel on the south side of the East Dutton Street bridge. This screen, which was cleared on a daily basis, prevented floating debris from entering and clogging or blocking the pump intake pipes.
- Rock Discharge Pad - A rock discharge pad was installed, downstream of the isolated area where the discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stones that dissipated the water's discharge velocity and reduced erosion of the creek bed.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the cofferdams installed in the slope area. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### 3. EXCAVATION/DISPOSAL ACTIVITIES

Excavation of contaminated sediments commenced in Grid 1 and continued from south to north through Grid 6. **Attachment F-A** provides photographic documentation of excavation activities. The table below lists excavation details, including targeted excavation depths.

### SA5-A EXCAVATION DETAILS

Grid	Target Excavation Depth (inches bss)	Final Excavation Depth (inches bss)	Surface Area of Excavated Sediment (ft <sup>2</sup> )	Volume of Excavated Sediment (yd <sup>3</sup> )
1	48	57	950	4512
2	48	66	1995	10972
3	48	63	2071	10874
4	48	62	2095	10826
5	48	63	2133	11198
6	48	63	2038	12118
7*	48	-	-	-

\* Grid 7 was not excavated due to close proximity to an existing retaining wall and roadway bridge

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = Cubic yard

In order to access contaminated sediments, a long reach excavator was positioned along the eastern creek bank. If sediments were sufficiently dry, the long reach excavator loaded excavated material directly into tri-axle dump trucks that were capable of hauling approximately 10 yd<sup>3</sup> of sediment. After loading, the dump trucks hauled the sediment directly to the John Street staging pad. If the sediments were too wet for direct shipment, excavated material was loaded into a 20 yd<sup>3</sup> mixing box, where a corn cob-based absorbent material was mixed in by a second excavator, solidifying the sediment prior to shipment to the John Street staging pad. This practice avoided any leakage of potentially contaminated liquids from dump trucks onto roadways between the excavation area and the John Street staging pad. Tri-axle dump trucks followed a specified truck route specified in the TCP.

All contaminated sediments were transported to the John Street staging area, where tri-axle dump trucks emptied their loads onto a staging pad designed to contain contaminated sediments along with any residual water or run-off from precipitation. Before returning to the excavation support area, tri-axle dump trucks passed through a tire wash station positioned on the staging pad. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## 4. SAMPLING/MONITORING ACTIVITIES AND RESULTS

### 4.1 PRE-CONSTRUCTION SOIL SAMPLING

Prior to commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils on the creek banks and in the support area. The support area was divided into 2,500 ft<sup>2</sup> sampling grids for PCB analysis and 10,000 ft<sup>2</sup> sampling areas for analysis for TCL VOCs and SVOCs, TCL pesticides and herbicides, TAL metals, and PCBs. All analytical data results for the pre-construction soil samples are presented in **Table F-2**. Analytical data validation reports are available upon request.

Eighteen 2,500 ft<sup>2</sup> soil samples (including one duplicate sample) and four 10,000 ft<sup>2</sup> composite soil samples were collected from SA5-A. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500 ft<sup>2</sup> grid. With the exception of Grids 13 - 17, each 10,000 ft<sup>2</sup> composite sample was generated by combining and homogenizing residual material from four 2,500 ft<sup>2</sup> composite samples.

### 4.2 CONFIRMATION, VERIFICATION, AND NODE SEDIMENT SAMPLING

During and after excavation of contaminated sediments, START and EPA collected confirmation, verification, and node sediment samples. All analytical data results for confirmation, verification, and node sediment samples are presented in **Table F-3**. Analytical data validation reports are available upon request.

Six confirmation samples were collected from Grids 1 - 6 at the final excavation depths. Verification sampling was conducted in certain grids where visual evidence of paper sludge or heavily stained soils was observed at original target depths specified in the Technical Memorandum. Specifically, verification samples were collected from Grids 1, 3, and 6 at the original target depth of 48 inches below the sediment surface. Verification samples were not collected from all grids for cost and time efficiency considerations. In other grids, if visual evidence of paper sludge or heavily stained soils was observed at original target depths, excavation continued beyond the target depth until grids were visibly clean of contaminated sediment.

For confirmation and verification sediment samples, one six-point composite sample was collected from each grid for PCB analysis. The confirmation and verification sample results were evaluated against the performance standard designated for stream sediments of less than or equal to 10 mg/kg of PCBs, with a performance standard goal of 1 mg/kg.

Node samples were collected from Grid 3 for statistical analysis of project quality objectives. The six discrete node locations used for each node sample coincided with the six node locations used for composite confirmation samples.

### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as pre-construction samples, and using the same grid areas and sample node locations. All analytical data results for the post-construction soil samples are presented in **Table F-4**. Analytical data validation reports are available upon request.

Seventeen individual 2,500 ft<sup>2</sup> grids and four 10,000-ft<sup>2</sup> grids were sampled. One duplicate sample was collected from the 2,500 ft<sup>2</sup> grids, and one follow-up sample was collected from Grid 16 after additional soil excavation took place in this grid. The individual 2,500 ft<sup>2</sup> samples were analyzed for PCBs and were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. All composited 10,000 ft<sup>2</sup> samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals, and PCBs. To ensure that work activities did not result in contaminating support areas, results of post-construction samples were compared to results of pre-construction samples.

### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-Site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the excavation areas during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure F-3** shows the DataRAM monitoring locations.



Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

## **5. POST-REMOVAL ACTIVITIES**

### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Area SA5-A” (Fleis and Vandenbrink Engineering Inc., August 2013), available upon request.

### **5.2 RESTORATION**

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment F-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of the excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing Site infrastructure and equipment required to conduct sediment excavation operations and making any necessary repairs to the property and/or constructed features resulting from sediment excavation operations. The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until vegetation was re-established (see Section 5.2.2).

#### **5.2.1 Bank Stabilization and Creek Channel Backfilling**

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek

banks to establish a 1:3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the eastern and western banks of Portage Creek. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inches) were placed every three feet on the waterside and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.

Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from the excavation activities. All corrective actions necessary to repair any damaged features resulting from sediment excavation operations were completed. EPA coordinated with appropriate stakeholders to verify their acceptance of Site repairs and conducted final Site walk-through inspections with property owners.

### **5.2.2 Re-vegetation**

An area-specific restoration plan was completed (available upon request) in coordination with the property owners and in accordance with the overall Site Restoration Plan. On the eastern bank, the parking lot area was re-graded with clean gravel to promote drainage and to support vehicle and foot traffic. An existing 12-inch corrugated steel drain pipe that emptied into Grid 5 was replaced and secured with safety bollards. All fencing and guard rail sections removed prior to construction were replaced around the parking lot. A subcontractor then implemented the area-specific restoration plan on the eastern creek bank, including a grass seed/fertilizer mix applied with straw cover to prevent erosion along with the planting of trees, shrubs, and vegetative plugs throughout the impacted areas.

On the west bank, the property owner requested that EPA forgo final restoration activities because of future plans to redevelop the property. Therefore, 6-inch crushed limestone (“rip rap”) was placed along the creek banks, and a temporary grass seed/fertilizer mix was applied with straw cover to prevent erosion. Pre-existing fencing on the west bank was not replaced at the request of the property owner.

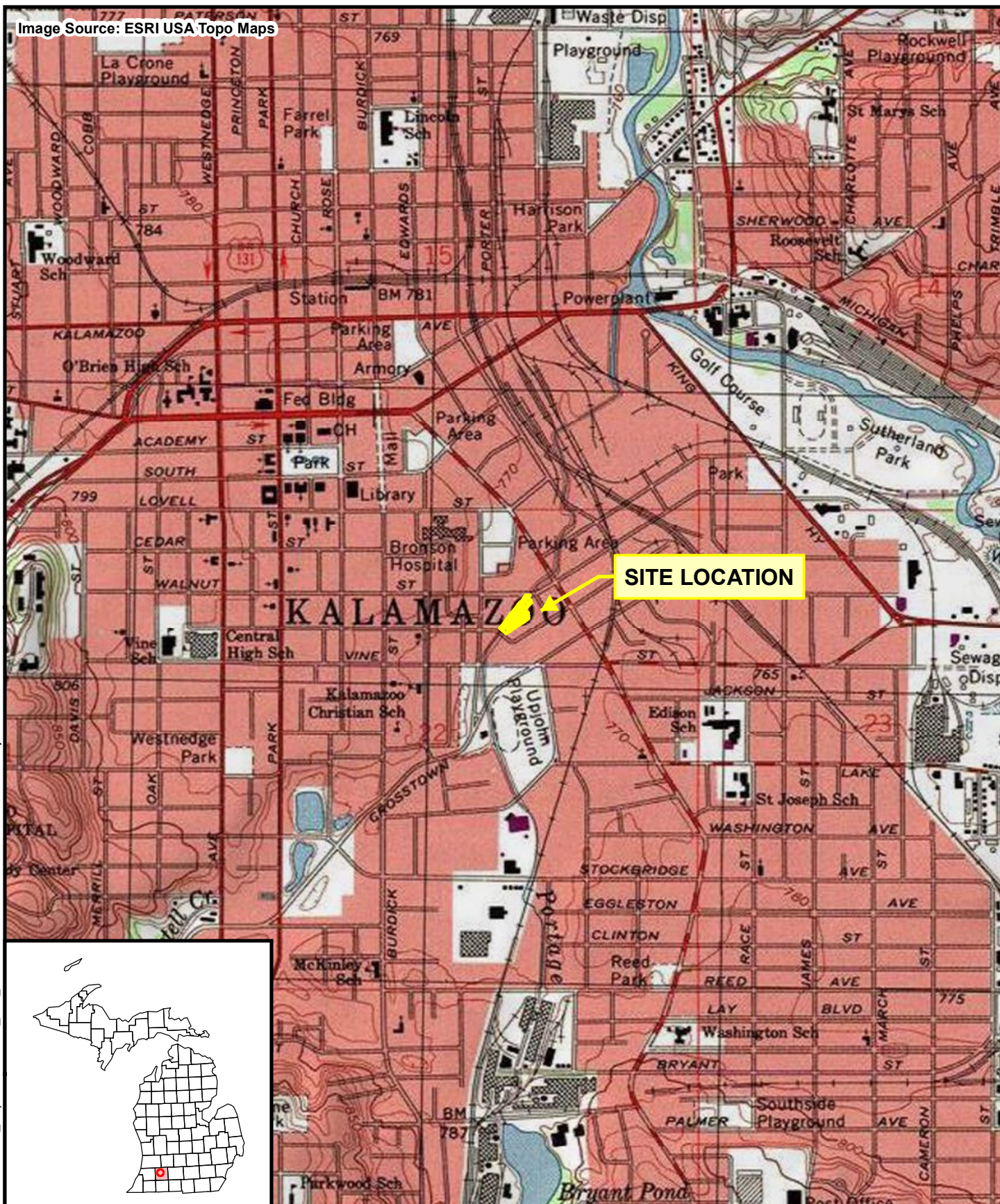
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## FIGURES

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Image Source: ESRI USA Topo Maps



#### Legend

Site Boundary

0 2,000 Feet



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Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
**WESTON SOLUTIONS, INC**

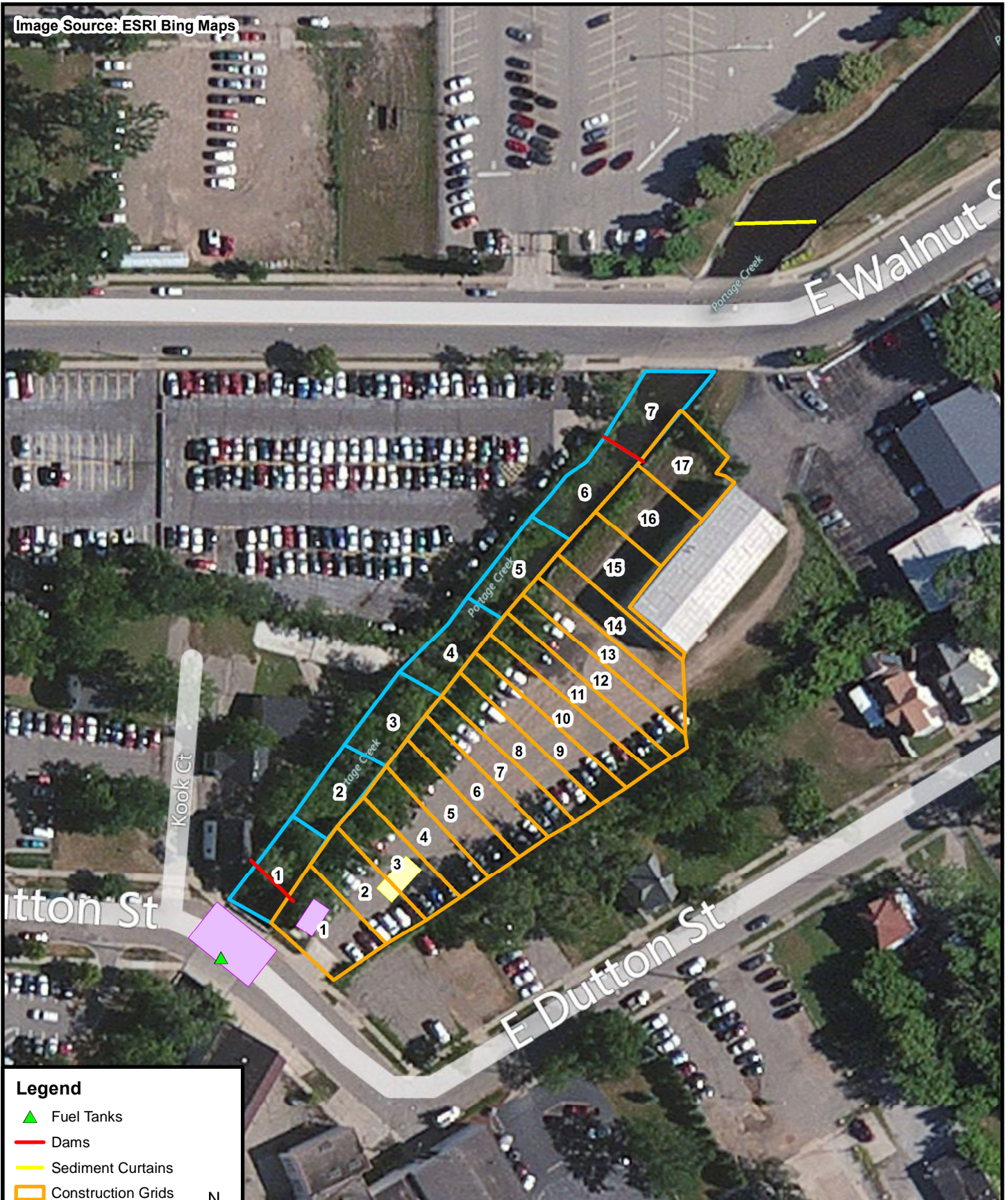
360 East Maple Road  
Suite R  
Troy, Michigan 48083

#### Figure F-1

Site Location Map  
Portage Creek Area SA5-A  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- Fuel Tanks
- Dams
- Sediment Curtains
- Construction Grids
- Removal Grids
- Pump
- Truck Wash

0 125  
Feet



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DCN: 1526-2A-BJNH



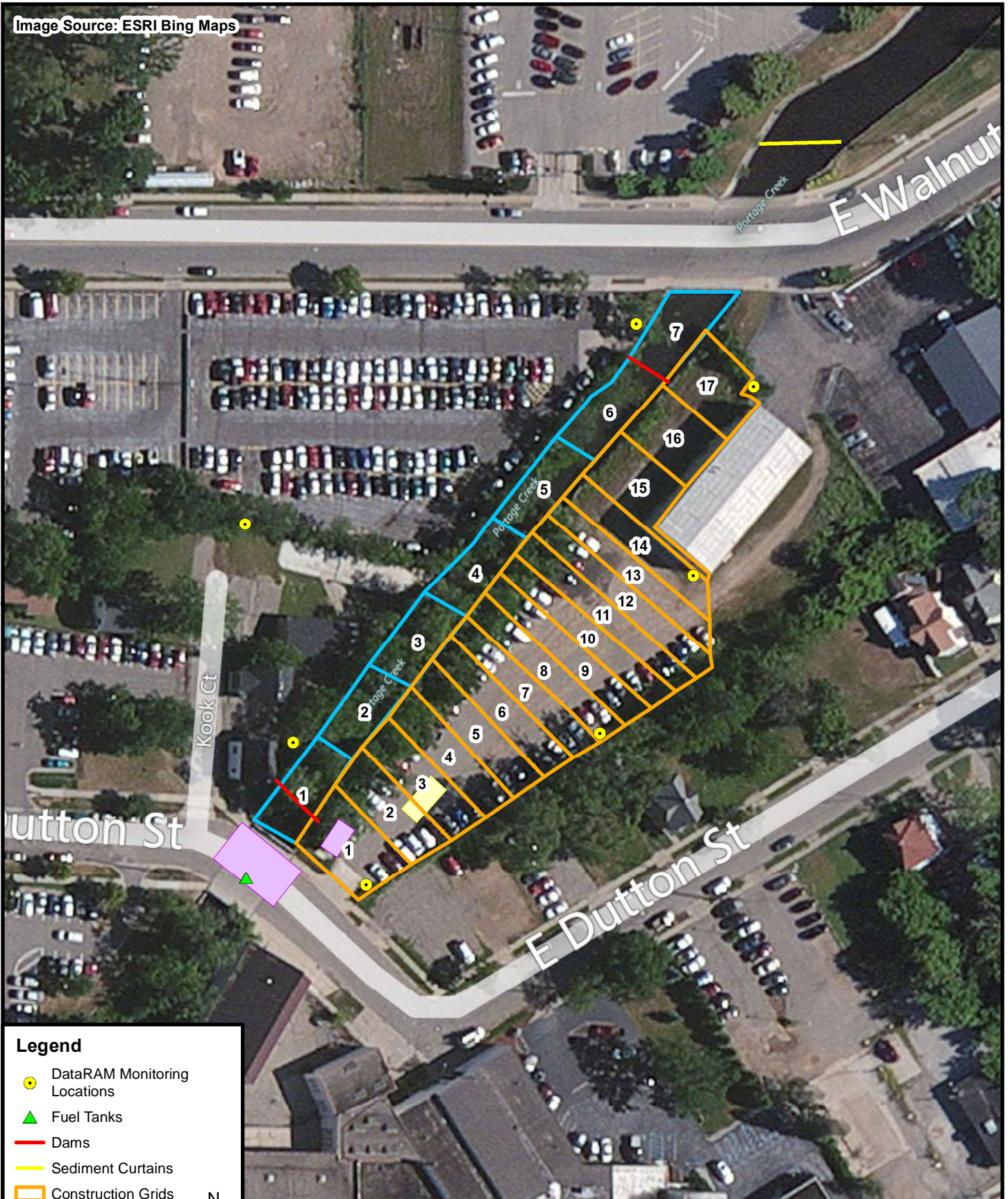
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**Figure F-2**  
Site Features Map  
Portage Creek Area SA5-A  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- DataRAM Monitoring Locations
- ▲ Fuel Tanks
- Dams
- Sediment Curtains
- Construction Grids
- Removal Grids
- Pump
- Truck Wash

0 125 Feet



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**Figure F-3**  
DataRAM Location Monitoring Map  
Portage Creek Area SA5-A  
Kalamazoo, Kalamazoo County,  
Michigan

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## TABLES

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**Table F-1**  
**SA5-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5A-1	PRSD-SA5A-1	PRSD-SA5A-1	PRSD-SA5A-1
		Field Sample ID	PRSD-SA5A-1(0-12")-101512	PRSD-SA5A-1(12-24")-101512	PRSD-SA5A-1(24-36")-101512	PRSD-SA5A-1(36-48")-101512
		Sampling Date	10/15/2012	10/15/2012	10/15/2012	10/15/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 36	36- 48
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.048 U	0.051 U	0.052 U	0.057 U
8082	AROCLOR 1221	mg/kg	0.048 U	0.051 U	0.052 U	0.057 U
8082	AROCLOR 1232	mg/kg	0.048 U	0.051 U	0.052 U	0.057 U
8082	AROCLOR 1242	mg/kg	0.25	1.7	1.4	2.4
8082	AROCLOR 1248	mg/kg	0.048 U	0.051 U	0.052 U	0.057 U
8082	AROCLOR 1254	mg/kg	0.083	0.38	0.27	0.5
8082	AROCLOR 1260	mg/kg	0.048 U	0.051 U	0.052 U	0.057 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.333	2.08	1.67	2.9

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5A-2	PRSD-SA5A-2	PRSD-SA5A-2	PRSD-SA5A-2
		Field Sample ID	PRSD-SA5A-2(0-12")-101512	PRSD-SA5A-2(12-24")-101512	PRSD-SA5A-2(24-36")-101512	PRSD-SA5A-2(36-44")-101512
		Sampling Date	10/15/2012	10/15/2012	10/15/2012	10/15/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 36	36- 44
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.052 U	0.056 U	0.054 U	0.053 U
8082	AROCLOR 1221	mg/kg	0.052 U	0.056 U	0.054 U	0.053 U
8082	AROCLOR 1232	mg/kg	0.052 U	0.056 U	0.054 U	0.053 U
8082	AROCLOR 1242	mg/kg	0.22	1.4	3.2	7.6
8082	AROCLOR 1248	mg/kg	0.052 U	0.056 U	0.054 U	0.053 U
8082	AROCLOR 1254	mg/kg	0.065	0.27	0.6	1.4
8082	AROCLOR 1260	mg/kg	0.052 U	0.056 U	0.054 U	0.053 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.285	1.67	3.8	9

**Table F-1**  
**SA5-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5A-3	PRSD-SA5A-3	PRSD-SA5A-3	PRSD-SA5A-3
		Field Sample ID	PRSD-SA5A-3(0-12")-101512	PRSD-SA5A-3(12-24")-101512	PRSD-SA5A-3(24-36")-101512	PRSD-SA5A-3(36-40")-101512
		Sampling Date	10/15/2012	10/15/2012	10/15/2012	10/15/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 36	36- 40
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.05 U	0.05 U	0.053 U	0.067 U
8082	AROCLOR 1221	mg/kg	0.05 U	0.05 U	0.053 U	0.067 U
8082	AROCLOR 1232	mg/kg	0.05 U	0.05 U	0.053 U	0.067 U
8082	AROCLOR 1242	mg/kg	0.19	0.19	2.5	7.7
8082	AROCLOR 1248	mg/kg	0.05 U	0.05 U	0.053 U	0.067 U
8082	AROCLOR 1254	mg/kg	0.05	0.063	1.1	1.1
8082	AROCLOR 1260	mg/kg	0.05 U	0.05 U	0.053 U	0.067 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.24	0.253	3.6	8.8

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre Removal	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA5A-4	PRSD-SA5A-4	PRSD-SA5A-4	PRSD-SA5A-4
		Field Sample ID	PRSD-SA5A-4(0-12")-101512	PRSD-SA5A-4(12-24")-101512	PRSD-SA5A-4(24-36")-101512	PRSD-SA5A-4(36-41")-101512
		Sampling Date	10/15/2012	10/15/2012	10/15/2012	10/15/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 36	36- 41
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.048 U	0.05 U	0.077 U	0.076 U
8082	AROCLOR 1221	mg/kg	0.048 U	0.05 U	0.077 U	0.076 U
8082	AROCLOR 1232	mg/kg	0.048 U	0.05 U	0.077 U	0.076 U
8082	AROCLOR 1242	mg/kg	0.12	1.4	12	19
8082	AROCLOR 1248	mg/kg	0.048 U	0.05 U	0.077 U	0.076 U
8082	AROCLOR 1254	mg/kg	0.048 U	0.27	1.7	5.3
8082	AROCLOR 1260	mg/kg	0.048 U	0.05 U	0.077 U	0.076 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.12	1.67	13.7	24.3



**Table F-1**  
**SA5-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5A-5	PRSD-SA5A-5	PRSD-SA5A-6
		Field Sample ID	PRSD-SA5A-5(12-24")-101512	PRSD-SA5A-5(24-36")-101512	PRSD-SA5A-6(0-12")-101512
		Sampling Date	10/15/2012	10/15/2012	10/15/2012
		Depth Interval (inches bss)	12- 24	24- 36	0- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.053 U	0.071 U	0.046 U
8082	AROCLOR 1221	mg/kg	0.053 U	0.071 U	0.046 U
8082	AROCLOR 1232	mg/kg	0.053 U	0.071 U	0.046 U
8082	AROCLOR 1242	mg/kg	2.3	11	0.37
8082	AROCLOR 1248	mg/kg	0.053 U	0.071 U	0.046 U
8082	AROCLOR 1254	mg/kg	0.4	1.7	0.16
8082	AROCLOR 1260	mg/kg	0.053 U	0.071 U	0.046 U
8082	Total PCBs (Sum of Detections)	mg/kg	2.7	12.7	0.53

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA5A-5	PRSD-SA5A-6	PRSD-SA5A-6
		Field Sample ID	PRSD-SA5A-5(24-36")-101512	PRSD-SA5A-6(36-42")-101512	PRSD-SA5A-6(42-54")-101512
		Sampling Date	10/15/2012	10/15/2012	10/15/2012
		Depth Interval (inches bss)	24- 36	36- 42	42- 54
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.071 U	0.087 U	0.049 U
8082	AROCLOR 1221	mg/kg	0.071 U	0.087 U	0.049 U
8082	AROCLOR 1232	mg/kg	0.071 U	0.087 U	0.049 U
8082	AROCLOR 1242	mg/kg	11	15	0.42
8082	AROCLOR 1248	mg/kg	0.071 U	0.087 U	0.049 U
8082	AROCLOR 1254	mg/kg	1.7	1.8	0.11
8082	AROCLOR 1260	mg/kg	0.071 U	0.087 U	0.049 U
8082	Total PCBs (Sum of Detections)	mg/kg	12.7	16.8	0.53

Notes:

bss = Below sediment surface  
ID = Identification  
mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl  
U = Undetected at specified reporting limit

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	AROCLOR 1221	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	AROCLOR 1232	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	AROCLOR 1242	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	AROCLOR 1248	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	AROCLOR 1254	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	AROCLOR 1260	mg/kg	0.0368 U	0.0374 U	0.0357 U	0.0374 U	0.0367 U	0.0369 U	0.0389 U	0.0389 U	0.041 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2 SA5-A Pre-Construction Soil Sampling Results Portage Creek Area Site Kalamazoo, Kalamazoo County, Michigan											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-01	PREC-SA5A-02	PREC-SA5A-03	PREC-SA5A-04	PREC-SA5A-05	PREC-SA5A-06	PREC-SA5A-07	PREC-SA5A-08	PREC-SA5A-09
		Field Sample ID	PREC-SA5A-01-031813	PREC-SA5A-02-032113	PREC-SA5A-03-032113	PREC-SA5A-04-032113	PREC-SA5A-05-032113	PREC-SA5A-06-032113	PREC-SA5A-07-032113	PREC-SA5A-08-032113	PREC-SA5A-09-032113
		Sampling Date	3/18/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound



Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.0395 U	0.0395 U
8082	AROCLOR 1221	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.0395 U	0.0395 U
8082	AROCLOR 1232	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.0395 U	0.0395 U
8082	AROCLOR 1242	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.0395 U	0.0395 U
8082	AROCLOR 1248	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.0395 U	0.0395 U
8082	AROCLOR 1254	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.109	0.0395 U
8082	AROCLOR 1260	mg/kg	0.0375 U	0.0378 U	0.0389 U	0.179 U	0.0365 U	0.0398 U	0.0381 U	0.0395 U	0.0395 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0.109	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-2 SA5-A Pre-Construction Soil Sampling Results Portage Creek Area Site Kalamazoo, Kalamazoo County, Michigan											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-10	PREC-SA5A-11	PREC-SA5A-12	PREC-SA5A-13	PREC-SA5A-14	PREC-SA5A-15	PREC-SA5A-15	PREC-SA5A-16	PREC-SA5A-17
		Field Sample ID	PREC-SA5A-10-032113	PREC-SA5A-11-032113	PREC-SA5A-12-032113	PREC-SA5A-13-032113	PREC-SA5A-14-032113	PREC-SA5A-15-032113	PREC-SA5A-15-032113-DP	PREC-SA5A-16-032113	PREC-SA5A-17-032113
		Sampling Date	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013	3/21/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
6010B	ALUMINUM	mg/kg	1860	2580	3030	3390
6010B	ARSENIC	mg/kg	3.93	7.89	5.99	7.45
6010B	BARIUM	mg/kg	45.2	75.4	93.4	64.4
6010B	BERYLLIUM	mg/kg	0.526 U	0.528 U	0.565 U	0.559 U
6010B	CADMIUM	mg/kg	0.53	1.13	0.62	0.535
6010B	CALCIUM	mg/kg	95800	39800	37100	28700
6010B	CHROMIUM	mg/kg	9.22	12.2	15.9	18.9
6010B	COBALT	mg/kg	5.26 U	5.28 U	5.65 U	5.59 U
6010B	IRON	mg/kg	15600	76000	42800	21600
6010B	LEAD	mg/kg	53.8	55.9	56.2	65.4
6010B	MAGNESIUM	mg/kg	40200	13200	12300	6590
6010B	NICKEL	mg/kg	6.74	12.9	13.3	14.7
6010B	POTASSIUM	mg/kg	526 U	528 U	565 U	559 U
6010B	SELENIUM	mg/kg	0.526 U	1.06 U	0.565 U	0.559 U
6010B	SILVER	mg/kg	0.526 U	0.528 U	0.565 U	0.559 U
6010B	SODIUM	mg/kg	526 U	528 U	565 U	559 U
6010B	VANADIUM	mg/kg	8.99	24	16.5	13.9
6010B	ZINC	mg/kg	100	95.2	143	170
6020A	ANTIMONY	mg/kg	0.217	0.218	1.24	0.242
6020A	COPPER	mg/kg	20.2	32.7	13.2	38.2
6020A	MANGANESE	mg/kg	583	908	543	556
6020A	THALLIUM	mg/kg	0.207 U	0.217 U	0.207 U	0.196 U
7471B	MERCURY	mg/kg	0.115 U	0.108 U	0.122 U	0.123 U
8081	4,4'-DDD	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	4,4'-DDE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	4,4'-DDT	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ALDRIN	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ALPHA-BHC	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ALPHA-CHLORDANE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	BETA-BHC	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	CHLORDANE	µg/kg	192 UJ	192 UJ	411 UJ	402 UJ
8081	DELTA-BHC	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	DIELDRIN	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ENDOSULFAN I	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ENDOSULFAN II	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ENDOSULFAN SULFATE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ENDRIN	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ENDRIN ALDEHYDE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	ENDRIN KETONE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	GAMMA-BHC (LINDANE)	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	GAMMA-CHLORDANE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	HEPTACHLOR	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	HEPTACHLOR EPOXIDE	µg/kg	19.2 U	19.2 U	41.1 U	40.2 U
8081	KEPONE, PEST	µg/kg	374 U	373 U	798 U	780 U

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8081	METHOXYCHLOR	µg/kg	37.4 U	37.3 U	79.8 U	78 U
8081	TOXAPHENE	µg/kg	758 U	758 U	1620 U	1580 U
8082	AROCLOR 1016	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	AROCLOR 1221	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	AROCLOR 1232	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	AROCLOR 1242	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	AROCLOR 1248	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	AROCLOR 1254	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	AROCLOR 1260	mg/kg	0.0374 U	0.0373 U	0.0399 U	0.039 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8151A	2,4,5-TP (SILVEX)	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8151A	2,4-D	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8151A	2,4-DB	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8151A	DALAPON	µg/kg	368 U	370 U	394 U	390 U
8151A	DICAMBA	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8151A	DICHLOROPROP	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8151A	DINOSEB	µg/kg	112 UJ	112 UJ	119 UJ	118 UJ
8151A	MCPA	µg/kg	2230 U	2250 U	2390 U	2370 U
8151A	MECOPROP	µg/kg	2230 U	2250 U	2390 U	2370 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	9.26 U	9.32 U	9.92 U	9.82 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,1-DICHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,1-DICHLOROETHENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	10.3 U	10.4 U	11.5 U	11.6 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,2-DICHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	10.3 U	10.4 U	11.5 U	11.6 U
8260	1,2-DICHLOROPROPANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	10.3 U	10.4 U	11.5 U	11.6 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	2-BUTANONE (MEK)	µg/kg	20.5 U	20.8 U	23 U	23.2 U
8260	2-HEXANONE	µg/kg	20.5 U	20.8 U	23 U	23.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	20.5 U	20.8 U	23 U	23.2 U
8260	ACETONE	µg/kg	20.5 U	20.8 U	23 U	23.2 U
8260	ACROLEIN	µg/kg	103 U	104 U	115 U	116 UJ

**Table F-2**  
**SA5-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8260	ACRYLONITRILE	µg/kg	103 U	104 U	115 U	116 U
8260	ALLYL CHLORIDE	µg/kg	10.3 U	10.4 U	11.5 U	11.6 U
8260	BENZENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	BROMODICHLOROMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	BROMOFORM	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CARBON DISULFIDE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CARBON TETRACHLORIDE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CHLOROBENZENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CHLORODIBROMOMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CHLOROETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CHLOROFORM	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CHLOROMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CHLOROPRENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	DIBROMOMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	ETHYL METHACRYLATE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	ETHYLBENZENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	IODOMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	M,P-XYLENE	µg/kg	10.3 U	10.4 U	11.5 U	11.6 U
8260	METHACRYLONITRILE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	METHYL METHACRYLATE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	METHYLENE CHLORIDE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	O-XYLENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	PROPIONITRILE	µg/kg	20.5 U	20.8 U	23 U	23.2 U
8260	STYRENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	TETRACHLOROETHENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	TOLUENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 UJ
8260	TRICHLOROETHENE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	VINYL ACETATE	µg/kg	10.3 U	10.4 U	11.5 U	11.6 UJ
8260	VINYL CHLORIDE	µg/kg	5.14 U	5.21 U	5.75 U	5.81 U
8260	XYLENE (TOTAL)	µg/kg	10.3 U	10.4 U	11.5 U	11.6 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	109 U	111 U	121 U	119 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	1,3,5-TRINITROBENZENE	µg/kg	1750 U	1780 U	1940 U	1900 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	1,3-DINITROBENZENE	µg/kg	360 U	366 U	400 U	393 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	1,4-NAPHTHOQUINONE	µg/kg	360 U	366 U	400 U	393 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	720 U	732 U	800 U	785 U
8270	1-NAPHTHYLAMINE	µg/kg	360 U	366 U	400 U	393 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	1750 U	1780 U	1940 U	1900 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	164 U	166 U	182 U	178 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	164 U	166 U	182 U	178 U
8270	2,4-DICHLOROPHENOL	µg/kg	164 U	166 U	182 U	178 U
8270	2,4-DIMETHYLPHENOL	µg/kg	164 U	166 U	182 U	178 U
8270	2,4-DINITROPHENOL	µg/kg	360 U	366 U	400 U	393 U
8270	2,4-DINITROTOLUENE	µg/kg	218 U	222 U	242 U	238 U
8270	2,6-DICHLOROPHENOL	µg/kg	218 U	222 U	242 U	238 U
8270	2,6-DINITROTOLUENE	µg/kg	218 U	222 U	242 U	238 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	360 U	366 U	400 U	393 U
8270	2-CHLORONAPHTHALENE	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	2-CHLOROPHENOL	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	90.8	29.3	15.6	20.9
8270	2-METHYLPHENOL	µg/kg	218 U	222 U	242 U	238 U
8270	2-NAPHTHYLAMINE	µg/kg	218 U	222 U	242 U	238 U
8270	2-NITROANILINE	µg/kg	218 U	222 U	242 U	238 U
8270	2-NITROPHENOL	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	2-PICOLINE	µg/kg	360 U	366 U	400 U	393 U
8270	3&4-METHYLPHENOL	µg/kg	437 U	444 U	485 U	476 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	109 U	111 U	121 U	119 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	360 U	366 U	400 U	393 U
8270	3-METHYLCHOLANTHRENE	µg/kg	218 U	222 U	242 U	238 U
8270	3-NITROANILINE	µg/kg	218 U	222 U	242 U	238 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	164 U	166 U	182 U	178 U
8270	4-AMINOBIPHENYL	µg/kg	360 U	366 U	400 U	393 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	164 U	166 U	182 U	178 U
8270	4-CHLOROANILINE	µg/kg	164 U	166 U	182 U	178 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	4-NITROANILINE	µg/kg	218 U	222 U	242 U	238 U
8270	4-NITROPHENOL, SVOC	µg/kg	360 U	366 U	400 U	393 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	360 U	366 U	400 U	393 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	360 U	366 U	400 U	393 U
8270	ACENAPHTHENE	µg/kg	11.2	35.3	14.2	19.6
8270	ACENAPHTHYLENE	µg/kg	7.28 U	14.7	8.09 U	7.94 U
8270	ACETOPHENONE	µg/kg	109 U	111 U	121 U	119 U
8270	ANILINE	µg/kg	360 U	366 U	400 U	393 U
8270	ANTHRACENE	µg/kg	24.6	93.4	32.1	32.3

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	BENZIDINE	µg/kg	720 U	732 U	800 U	785 U
8270	BENZO(A)ANTHRACENE	µg/kg	114	407	216	266
8270	BENZO[A]PYRENE	µg/kg	134	458	293	341
8270	BENZO[B]FLUORANTHENE	µg/kg	228	724	545	703
8270	BENZO[G,H,I]PERYLENE	µg/kg	54	196	114	128
8270	BENZO[K]FLUORANTHENE	µg/kg	95	297	211	308
8270	BENZYL ALCOHOL	µg/kg	360 U	366 U	400 U	393 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	109 U	111 U	121 U	119 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	109 U	111 U	121 U	119 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	109 U	111 U	121 U	119 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	90.2	77.7 U	115	118
8270	BUTYL BENZYL PHTHALATE	µg/kg	76.4 U	84.5	133	104
8270	CARBAZOLE	µg/kg	54.6 U	71.3	60.6 U	59.5 U
8270	CHLOROBENZILATE	µg/kg	360 U	366 U	400 U	393 U
8270	CHRYSENE	µg/kg	155	500	319	384
8270	DIALLATE	µg/kg	360 U	366 U	400 U	393 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	7.28 U	7.4 U	8.09 U	7.94 U
8270	DIBENZOFURAN	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	DIETHYL PHTHALATE	µg/kg	76.4 U	77.7 U	84.9 U	83.3 U
8270	DIMETHOATE	µg/kg	360 U	366 U	400 U	393 U
8270	DIMETHYL PHTHALATE	µg/kg	76.4 U	77.7 U	84.9 U	83.3 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	360 U	366 U	400 U	393 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	76.4 U	77.7 U	84.9 U	83.3 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	76.4 U	77.7 U	84.9 U	83.3 U
8270	DIPHENYLAMINE	µg/kg	109 U	111 U	121 U	119 U
8270	DISULFOTON	µg/kg	360 U	366 U	400 U	393 U
8270	ETHYL METHANESULFONATE	µg/kg	360 U	366 U	400 U	393 U
8270	FAMPHUR	µg/kg	3600 UJ	3660 UJ	4000 UJ	3930 UJ
8270	FLUORANTHENE	µg/kg	291	1060	578	836
8270	FLUORENE	µg/kg	11.4	38.9	13.1	19.6
8270	HEXACHLOROBENZENE, SVOC	µg/kg	7.28 U	7.4 U	8.09 U	7.94 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	360 U	366 U	400 U	393 U
8270	HEXACHLOROETHANE	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	HEXACHLOROPROPENE	µg/kg	360 U	366 U	400 U	393 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	50.7	169	104	112
8270	ISODRIN	µg/kg	360 U	366 U	400 U	393 U
8270	ISOPHORONE	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	ISOSAFROLE	µg/kg	360 U	366 U	400 U	393 U
8270	METHAPYRILENE	µg/kg	360 U	366 U	400 U	393 U
8270	METHYL METHANESULFONATE	µg/kg	360 U	366 U	400 U	393 U
8270	METHYL PARATHION	µg/kg	360 U	366 U	400 U	393 U
8270	NAPHTHALENE, SVOC	µg/kg	36.6	32.6	15.6	21.5



Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	NITROBENZENE	µg/kg	109 U	111 U	121 U	119 U
8270	N-NITROSODIETHYLAMINE	µg/kg	109 U	111 U	121 U	119 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	109 U	111 U	121 U	119 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	109 U	111 U	121 U	119 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U

Table F-2  
SA5-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA5A-COMP-01	PREC-SA5A-COMP-02	PREC-SA5A-COMP-03	PREC-SA5A-COMP-04
		Field Sample ID	COMPOSITE-01-032213	COMPOSITE-02-032213	COMPOSITE-03-032213	COMPOSITE-04-032213
		Sampling Date	3/22/2013	3/22/2013	3/22/2013	3/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	109 U	111 U	121 U	119 U
8270	N-NITROSOMORPHOLINE	µg/kg	360 U	366 U	400 U	393 U
8270	N-NITROSOPIPERIDINE	µg/kg	360 U	366 U	400 U	393 U
8270	N-NITROSOPYRROLIDINE	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	360 U	366 U	400 U	393 U
8270	O-TOLUIDINE	µg/kg	360 U	366 U	400 U	393 U
8270	PARATHION	µg/kg	360 U	366 U	400 U	393 U
8270	PENTACHLOROBENZENE	µg/kg	109 U	111 U	121 U	119 U
8270	PENTACHLORONITROBENZENE	µg/kg	360 U	366 U	400 U	393 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	164 U	166 U	182 U	178 U
8270	PHENACETIN	µg/kg	360 U	366 U	400 U	393 U
8270	PHENANTHRENE	µg/kg	139	601	233	390
8270	PHENOL	µg/kg	54.6 U	55.5 U	60.6 U	59.5 U
8270	PHORATE	µg/kg	360 U	366 U	400 U	393 U
8270	PRONAMIDE	µg/kg	360 U	366 U	400 U	393 U
8270	PYRENE	µg/kg	247	892	534	732
8270	PYRIDINE	µg/kg	109 U	111 U	121 U	119 U
8270	SAFROLE	µg/kg	360 U	366 U	400 U	393 U
8270	SULFOTEPP	µg/kg	360 U	366 U	400 U	393 U
8270	THIONAZIN	µg/kg	360 U	366 U	400 U	393 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table F-3**  
**SA5-A Confirmation, Node and Verification Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA5A-1	CSD-SA5A-2	CSD-SA5A-3	CSD-SA5A-4
		Field Sample ID	CSD-SA5A-1-040913	CSD-SA5A-2-041013	CSD-SA5A-3-050613	CSD-SA5A-4-050713
		Sampling Date	4/9/2013	4/10/2013	5/6/2013	5/7/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.064 U	0.054 U	0.051 U	0.05 U
8082	AROCLOR 1221	mg/kg	0.064 U	0.054 U	0.051 U	0.05 U
8082	AROCLOR 1232	mg/kg	0.064 U	0.054 U	0.051 U	0.05 U
8082	AROCLOR 1242	mg/kg	1.9	0.062	1.2	0.68
8082	AROCLOR 1248	mg/kg	0.064 U	0.054 U	0.051 U	0.05 U
8082	AROCLOR 1254	mg/kg	0.064 U	0.054 U	0.39	0.15
8082	AROCLOR 1260	mg/kg	0.064 U	0.054 U	0.051 U	0.05 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.9	0.062	1.59	0.83

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Confirmation	Confirmation	Node	Node
		Location ID	CSD-SA5A-5	CSD-SA5A-6	NSD-SA5A-3-1	NSD-SA5A-3-2
		Field Sample ID	CSD-SA5A-5-050713	CSD-SA5A-6-050813	NSD-SA5A-3-1-050613	NSD-SA5A-3-2-050613
		Sampling Date	5/7/2013	5/8/2013	5/6/2013	5/6/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.049 U	0.052 U	0.057 U	0.049 U
8082	AROCLOR 1221	mg/kg	0.049 U	0.052 U	0.057 U	0.049 U
8082	AROCLOR 1232	mg/kg	0.049 U	0.052 U	0.057 U	0.049 U
8082	AROCLOR 1242	mg/kg	0.91	0.69	2.5	0.049 U
8082	AROCLOR 1248	mg/kg	0.049 U	0.052 U	0.057 U	0.049 U
8082	AROCLOR 1254	mg/kg	0.16	0.21	0.48	0.049 U
8082	AROCLOR 1260	mg/kg	0.049 U	0.052 U	0.057 U	0.049 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.07	0.9	2.98	0 U

**Table F-3**  
**SA5-A Confirmation, Node and Verification Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Node	Node	Node	Node
		Location ID	NSD-SA5A-3-3	NSD-SA5A-3-4	NSD-SA5A-3-5	NSD-SA5A-3-6
		Field Sample ID	NSD-SA5A-3-3-050613	NSD-SA5A-3-4-050613	NSD-SA5A-3-5-050613	NSD-SA5A-3-6-050613
		Sampling Date	5/6/2013	5/6/2013	5/6/2013	5/6/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.07 U	0.047 U	0.054 U	0.051 U
8082	AROCLOR 1221	mg/kg	0.07 U	0.047 U	0.054 U	0.051 U
8082	AROCLOR 1232	mg/kg	0.07 U	0.047 U	0.054 U	0.051 U
8082	AROCLOR 1242	mg/kg	5.7	0.047 U	1.6	0.6
8082	AROCLOR 1248	mg/kg	0.07 U	0.047 U	0.054 U	0.051 U
8082	AROCLOR 1254	mg/kg	1.4	0.047 U	0.28	0.65
8082	AROCLOR 1260	mg/kg	0.07 U	0.047 U	0.054 U	0.051 U
8082	Total PCBs (Sum of Detections)	mg/kg	7.1	0 U	1.88	1.25

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Verification	Verification	Verification
		Location ID	VER-SA5A-1	VER-SA5A-3	VER-SA5A-6
		Field Sample ID	VER-SA5A-1 (48'')-040913	VER-SA5A-3(48'')-050613	VER-SA5A-6(48'')-050813
		Sampling Date	4/9/2013	5/6/2013	5/8/2013
		Depth Interval (inches bss)	0- 48	0- 48	0- 48
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.069 U	0.059 U	0.071 U
8082	AROCLOR 1221	mg/kg	0.069 U	0.059 U	0.071 U
8082	AROCLOR 1232	mg/kg	0.069 U	0.059 U	0.071 U
8082	AROCLOR 1242	mg/kg	46	2.6	2.9
8082	AROCLOR 1248	mg/kg	0.069 U	0.059 U	0.071 U
8082	AROCLOR 1254	mg/kg	0.069 U	0.77	0.98
8082	AROCLOR 1260	mg/kg	0.069 U	0.059 U	0.071 U
8082	Total PCBs (Sum of Detections)	mg/kg	46	3.37	3.88

Notes:

bss = Below sediment surface

ID = Identification

NA= Not applicable

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-01	PSTC-SA5A-02	PSTC-SA5A-03	PSTC-SA5A-04	PSTC-SA5A-05	PSTC-SA5A-06	PSTC-SA5A-07	PSTC-SA5A-08	PSTC-SA5A-09
		Field Sample ID	PSTC-SA5A-01-051413	PSTC-SA5A-02-051413	PSTC-SA5A-03-051413	PSTC-SA5A-04-051413	PSTC-SA5A-05-051413	PSTC-SA5A-06-051413	PSTC-SA5A-07-051413	PSTC-SA5A-08-051413	PSTC-SA5A-09-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-01	PSTC-SA5A-02	PSTC-SA5A-03	PSTC-SA5A-04	PSTC-SA5A-05	PSTC-SA5A-06	PSTC-SA5A-07	PSTC-SA5A-08	PSTC-SA5A-09
		Field Sample ID	PSTC-SA5A-01-051413	PSTC-SA5A-02-051413	PSTC-SA5A-03-051413	PSTC-SA5A-04-051413	PSTC-SA5A-05-051413	PSTC-SA5A-06-051413	PSTC-SA5A-07-051413	PSTC-SA5A-08-051413	PSTC-SA5A-09-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8082	AROCLOR 1016	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	AROCLOR 1221	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	AROCLOR 1232	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	AROCLOR 1242	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	AROCLOR 1248	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	AROCLOR 1254	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	AROCLOR 1260	mg/kg	0.04 U	0.038 U	0.038 U	0.038 U	0.04 U	0.039 U	0.04 U	0.042 U	0.043 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROTRIFLUOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRIMETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3,5-TRIMETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-CHLOROETHYL VINYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-CHLOROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-01	PSTC-SA5A-02	PSTC-SA5A-03	PSTC-SA5A-04	PSTC-SA5A-05	PSTC-SA5A-06	PSTC-SA5A-07	PSTC-SA5A-08	PSTC-SA5A-09
		Field Sample ID	PSTC-SA5A-01-051413	PSTC-SA5A-02-051413	PSTC-SA5A-03-051413	PSTC-SA5A-04-051413	PSTC-SA5A-05-051413	PSTC-SA5A-06-051413	PSTC-SA5A-07-051413	PSTC-SA5A-08-051413	PSTC-SA5A-09-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-METHYLNAPHTHALENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-NITROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-CHLOROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOCHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CYCLOHEXANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIETHYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ISOPROPYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL TERT-BUTYL ETHER (MTBE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	NAPHTHALENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	N-BUTYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	N-HEXANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	N-PROPYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

<div>Table F-4</div> <div>SA5-A Post-Construction Soil Sampling Results</div> <div>Portage Creek Area Site</div> <div>Kalamazoo, Kalamazoo County, Michigan</div>											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-01	PSTC-SA5A-02	PSTC-SA5A-03	PSTC-SA5A-04	PSTC-SA5A-05	PSTC-SA5A-06	PSTC-SA5A-07	PSTC-SA5A-08	PSTC-SA5A-09
		Field Sample ID	PSTC-SA5A-01-051413	PSTC-SA5A-02-051413	PSTC-SA5A-03-051413	PSTC-SA5A-04-051413	PSTC-SA5A-05-051413	PSTC-SA5A-06-051413	PSTC-SA5A-07-051413	PSTC-SA5A-08-051413	PSTC-SA5A-09-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	P-ISOPROPYLTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	SEC-BUTYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TERT-BUTYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

<div>Table F-4</div> <div>SA5-A Post-Construction Soil Sampling Results</div> <div>Portage Creek Area Site</div> <div>Kalamazoo, Kalamazoo County, Michigan</div>											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-01	PSTC-SA5A-02	PSTC-SA5A-03	PSTC-SA5A-04	PSTC-SA5A-05	PSTC-SA5A-06	PSTC-SA5A-07	PSTC-SA5A-08	PSTC-SA5A-09
		Field Sample ID	PSTC-SA5A-01-051413	PSTC-SA5A-02-051413	PSTC-SA5A-03-051413	PSTC-SA5A-04-051413	PSTC-SA5A-05-051413	PSTC-SA5A-06-051413	PSTC-SA5A-07-051413	PSTC-SA5A-08-051413	PSTC-SA5A-09-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

µg/kg = Microgram per kilogram

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

R = RPD above laboratory control limit

SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-10	PSTC-SA5A-11	PSTC-SA5A-12	PSTC-SA5A-13	PSTC-SA5A-14	PSTC-SA5A-15	PSTC-SA5A-15	PSTC-SA5A-16	PSTC-SA5A-16
		Field Sample ID	PSTC-SA5A-10-051413	PSTC-SA5A-11-051413	PSTC-SA5A-12-051413	PSTC-SA5A-13-051413	PSTC-SA5A-14-051413	PSTC-SA5A-15-051413	PSTC-SA5A-15-051413-DP	PSTC-SA5A-16-051413	PSTC-SA5A-16-051713
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/17/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

<div>Table F-4</div> <div>SA5-A Post-Construction Soil Sampling Results</div> <div>Portage Creek Area Site</div> <div>Kalamazoo, Kalamazoo County, Michigan</div>											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-10	PSTC-SA5A-11	PSTC-SA5A-12	PSTC-SA5A-13	PSTC-SA5A-14	PSTC-SA5A-15	PSTC-SA5A-15	PSTC-SA5A-16	PSTC-SA5A-16
		Field Sample ID	PSTC-SA5A-10-051413	PSTC-SA5A-11-051413	PSTC-SA5A-12-051413	PSTC-SA5A-13-051413	PSTC-SA5A-14-051413	PSTC-SA5A-15-051413	PSTC-SA5A-15-051413-DP	PSTC-SA5A-16-051413	PSTC-SA5A-16-051713
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/17/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8082	AROCLOR 1016	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.043 U	0.04 R
8082	AROCLOR 1221	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.043 U	0.04 R
8082	AROCLOR 1232	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.043 U	0.04 R
8082	AROCLOR 1242	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.041 U	0.04 R
8082	AROCLOR 1248	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.043 U	0.04 R
8082	AROCLOR 1254	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.043 U	0.04 R
8082	AROCLOR 1260	mg/kg	0.043 U	0.042 U	0.043 U	0.041 U	0.04 U	0.041 U	0.041 U	0.043 U	0.04 R
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0.15	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROTRIFLUOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRIMETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3,5-TRIMETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-CHLOROETHYL VINYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-CHLOROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-10	PSTC-SA5A-11	PSTC-SA5A-12	PSTC-SA5A-13	PSTC-SA5A-14	PSTC-SA5A-15	PSTC-SA5A-15	PSTC-SA5A-16	PSTC-SA5A-16
		Field Sample ID	PSTC-SA5A-10-051413	PSTC-SA5A-11-051413	PSTC-SA5A-12-051413	PSTC-SA5A-13-051413	PSTC-SA5A-14-051413	PSTC-SA5A-15-051413	PSTC-SA5A-15-051413-DP	PSTC-SA5A-16-051413	PSTC-SA5A-16-051713
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/17/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-METHYLNAPHTHALENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-NITROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-CHLOROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOCHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CYCLOHEXANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIETHYL ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ISOPROPYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL TERT-BUTYL ETHER (MTBE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	NAPHTHALENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	N-BUTYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	N-HEXANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	N-PROPYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table F-4 SA5-A Post-Construction Soil Sampling Results Portage Creek Area Site Kalamazoo, Kalamazoo County, Michigan											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-10	PSTC-SA5A-11	PSTC-SA5A-12	PSTC-SA5A-13	PSTC-SA5A-14	PSTC-SA5A-15	PSTC-SA5A-15	PSTC-SA5A-16	PSTC-SA5A-16
		Field Sample ID	PSTC-SA5A-10-051413	PSTC-SA5A-11-051413	PSTC-SA5A-12-051413	PSTC-SA5A-13-051413	PSTC-SA5A-14-051413	PSTC-SA5A-15-051413	PSTC-SA5A-15-051413-DP	PSTC-SA5A-16-051413	PSTC-SA5A-16-051713
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/17/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	P-ISOPROPYLTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	SEC-BUTYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TERT-BUTYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

<div>Table F-4</div> <div>SA5-A Post-Construction Soil Sampling Results</div> <div>Portage Creek Area Site</div> <div>Kalamazoo, Kalamazoo County, Michigan</div>											
		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-10	PSTC-SA5A-11	PSTC-SA5A-12	PSTC-SA5A-13	PSTC-SA5A-14	PSTC-SA5A-15	PSTC-SA5A-15	PSTC-SA5A-16	PSTC-SA5A-16
		Field Sample ID	PSTC-SA5A-10-051413	PSTC-SA5A-11-051413	PSTC-SA5A-12-051413	PSTC-SA5A-13-051413	PSTC-SA5A-14-051413	PSTC-SA5A-15-051413	PSTC-SA5A-15-051413-DP	PSTC-SA5A-16-051413	PSTC-SA5A-16-051713
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/17/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

µg/kg = Microgram per kilogram

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

R = RPD above laboratory control limit

SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-17	PSTC-SA5A-COMP-01	PSTC-SA5A-COMP-02	PSTC-SA5A-COMP-03	PSTC-SA5A-COMP-04
		Field Sample ID	PSTC-SA5A-17-051413	PSTC-SA5A-COMPOSITE-01-051413	PSTC-SA5A-COMPOSITE-02-051413	PSTC-SA5A-COMPOSITE-03-051413	PSTC-SA5A-COMPOSITE-04-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	NA	2350	2960	4290	2640
6020A	ANTIMONY	mg/kg	NA	0.215 UJ	0.259 J	0.269 J	0.213 UJ
6010B	ARSENIC	mg/kg	NA	6.72	9.73	7.51	6.5
6010B	BARIUM	mg/kg	NA	55	37.8	53.5	49.7
6010B	BERYLLIUM	mg/kg	NA	0.457 U	0.489 U	0.518 U	0.493 U
6010B	CADMIUM	mg/kg	NA	0.522	0.333	0.496	0.511
6010B	CALCIUM	mg/kg	NA	115000	76300	39200	108000
6010B	CHROMIUM	mg/kg	NA	13	11.9	15.6	13
6010B	COBALT	mg/kg	NA	4.57 U	4.89 U	5.18 U	4.93 U
6020A	COPPER	mg/kg	NA	22.1 J	18.1 J	43.1 J	12.6 J
6010B	IRON	mg/kg	NA	22700	15200	21200	19300
6010B	LEAD	mg/kg	NA	81	48.4	60.4	45.7
6010B	MAGNESIUM	mg/kg	NA	16700	18500	11800	13400
6020A	MANGANESE	mg/kg	NA	585 J	413 J	792 J	735 J
7471B	MERCURY	mg/kg	NA	0.121	0.116	0.105	0.114 U
6010B	NICKEL	mg/kg	NA	10	11.2	10.2	10.3
6010B	POTASSIUM	mg/kg	NA	457 U	489 U	518 U	493 U
6010B	SELENIUM	mg/kg	NA	0.834	0.489 U	0.518 U	0.542
6010B	SILVER	mg/kg	NA	0.457 U	0.489 U	0.518 U	0.493 U
6010B	SODIUM	mg/kg	NA	457 U	489 U	518 U	493 U
6020A	THALLIUM	mg/kg	NA	0.215 U	0.211 U	0.209 U	0.213 U
6010B	VANADIUM	mg/kg	NA	10.3	10.7	11.1	11.5
6010B	ZINC	mg/kg	NA	224	154	152	92.2
8081	4,4'-DDD	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	4,4'-DDE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	4,4'-DDT	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ALDRIN	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ALPHA-BHC	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ALPHA-CHLORDANE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	BETA-BHC	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	CHLORDANE	µg/kg	NA	375 UJ	91 U	904 UJ	376 U
8081	DELTA-BHC	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	DIELDRIN	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ENDOSULFAN I	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ENDOSULFAN II	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ENDOSULFAN SULFATE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ENDRIN	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ENDRIN ALDEHYDE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	ENDRIN KETONE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	GAMMA-CHLORDANE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	HEPTACHLOR	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	37.5 UJ	9.1 U	90.4 UJ	37.6 U
8081	KEPONE, PEST	µg/kg	NA	728 UJ	177 U	1750 UJ	730 U
8081	METHOXYCHLOR	µg/kg	NA	72.8 UJ	17.7 U	175 UJ	73 U
8081	TOXAPHENE	µg/kg	NA	1480 UJ	359 U	3560 UJ	1480 U

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-17	PSTC-SA5A-COMP-01	PSTC-SA5A-COMP-02	PSTC-SA5A-COMP-03	PSTC-SA5A-COMP-04
		Field Sample ID	PSTC-SA5A-17-051413	PSTC-SA5A-COMPOSITE-01-051413	PSTC-SA5A-COMPOSITE-02-051413	PSTC-SA5A-COMPOSITE-03-051413	PSTC-SA5A-COMPOSITE-04-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8082	AROCLOR 1016	mg/kg	0.042 U	0.0364 U	0.0353 U	0.0351 U	0.0365 U
8082	AROCLOR 1221	mg/kg	0.042 U	0.0364 U	0.0353 U	0.0351 U	0.0365 U
8082	AROCLOR 1232	mg/kg	0.042 U	0.0364 U	0.0353 U	0.0351 U	0.0365 U
8082	AROCLOR 1242	mg/kg	0.042 U	0.0364 U	0.0353 U	0.0351 U	0.0365 U
8082	AROCLOR 1248	mg/kg	0.042 U	0.175	0.0353 U	0.0351 U	0.0365 U
8082	AROCLOR 1254	mg/kg	0.042 U	0.0364 U	0.0353 U	0.0351 U	0.0365 U
8082	AROCLOR 1260	mg/kg	0.042 U	0.0364 U	0.0353 U	0.0351 U	0.0365 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.175	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	8.98 U	8.64 U	8.75 U	9.05 U
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	8.98 U	8.64 U	8.75 U	9.05 U
8151A	2,4-D	µg/kg	NA	8.98 U	8.64 U	8.75 U	9.05 U
8151A	2,4-DB	µg/kg	NA	8.98 UJ	8.64 U	8.75 U	9.05 U
8151A	DALAPON	µg/kg	NA	357 U	344 U	348 U	360 U
8151A	DICAMBA	µg/kg	NA	8.98 UJ	8.64 U	8.75 U	9.05 U
8151A	DICHLOROPROP	µg/kg	NA	8.98 UJ	8.64 U	8.75 U	9.05 U
8151A	DINOSEB	µg/kg	NA	108 U	104 U	105 U	109 U
8151A	MCPA	µg/kg	NA	2160 U	2080 U	2110 U	2180 U
8151A	MECOPROP	µg/kg	NA	2160 U	2080 U	2110 U	2180 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	8.98 UJ	8.64 U	8.75 U	9.05 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1,2-TRICHLOROTRIFLUOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,1-DICHLOROPROPENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2,3-TRICHLOROBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2,4-TRIMETHYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,3,5-TRIMETHYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,3-DICHLOROPROPANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	2,2-DICHLOROPROPANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	2-BUTANONE (MEK)	µg/kg	NA	20.3 U	19.4 U	18.3 U	20.8 U
8260	2-CHLOROETHYL VINYL ETHER	µg/kg	NA	50.8 U	48.6 U	45.7 U	52 U
8260	2-CHLOROTOLUENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-17	PSTC-SA5A-COMP-01	PSTC-SA5A-COMP-02	PSTC-SA5A-COMP-03	PSTC-SA5A-COMP-04
		Field Sample ID	PSTC-SA5A-17-051413	PSTC-SA5A-COMPOSITE-01-051413	PSTC-SA5A-COMPOSITE-02-051413	PSTC-SA5A-COMPOSITE-03-051413	PSTC-SA5A-COMPOSITE-04-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	2-HEXANONE	µg/kg	NA	20.3 U	19.4 U	18.3 U	20.8 U
8260	2-METHYLNAPHTHALENE, VOC	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	2-NITROPROPANE	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	4-CHLOROTOLUENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	20.3 U	19.4 U	18.3 U	20.8 U
8260	ACETONE	µg/kg	NA	20.3 U	19.4 U	18.3 U	20.8 U
8260	ACROLEIN	µg/kg	NA	102 U	97.2 U	91.4 U	104 U
8260	ACRYLONITRILE	µg/kg	NA	102 U	97.2 U	91.4 U	104 U
8260	ALLYL CHLORIDE	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	BENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	BROMOBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	BROMOCHLOROMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	BROMOFORM	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CARBON DISULFIDE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CHLOROBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CHLOROETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CHLOROFORM	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CHLOROMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CHLOROPRENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CIS-1,2-DICHLOROETHENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	CYCLOHEXANE	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	DIBROMOMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	DIETHYL ETHER	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	ETHYL ACETATE	µg/kg	NA	20.3 U	19.4 U	18.3 U	20.8 U
8260	ETHYL METHACRYLATE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	ETHYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	IODOMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	ISOPROPYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	M,P-XYLENE	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8260	METHACRYLONITRILE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	METHYL METHACRYLATE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	METHYL TERT-BUTYL ETHER (MTBE)	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	METHYLENE CHLORIDE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	NAPHTHALENE, VOC	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	N-BUTYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	N-HEXANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	N-PROPYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	O-XYLENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U

Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-17	PSTC-SA5A-COMP-01	PSTC-SA5A-COMP-02	PSTC-SA5A-COMP-03	PSTC-SA5A-COMP-04
		Field Sample ID	PSTC-SA5A-17-051413	PSTC-SA5A-COMPOSITE-01-051413	PSTC-SA5A-COMPOSITE-02-051413	PSTC-SA5A-COMPOSITE-03-051413	PSTC-SA5A-COMPOSITE-04-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	PENTACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	P-ISOPROPYLTOLUENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	PROPIONITRILE	µg/kg	NA	20.3 U	19.4 U	18.3 U	20.8 U
8260	SEC-BUTYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	STYRENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TERT-BUTYLBENZENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TETRACHLOROETHENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TOLUENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TRICHLOROETHENE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	VINYL ACETATE	µg/kg	NA	10.2 UJ	9.72 U	9.14 U	10.4 U
8260	VINYL CHLORIDE	µg/kg	NA	5.08 U	4.86 U	4.57 U	5.2 U
8260	XYLENE (TOTAL)	µg/kg	NA	10.2 U	9.72 U	9.14 U	10.4 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	407 U	161 U	317 U	331 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	407 U	161 U	317 U	331 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	407 U	161 U	317 U	331 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	407 U	161 U	317 U	331 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	2-CHLOROPHENOL	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	30.7	12.1	41.8	27.1
8270	2-NITROPHENOL	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	271 U	107 U	211 U	221 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	407 U	161 U	317 U	331 U
8270	ACENAPHTHENE	µg/kg	NA	18.1 UJ	10.5 J	80.2 J	39.9 J
8270	ACENAPHTHYLENE	µg/kg	NA	18.1 U	7.16 U	14.2	14.7 U
8270	ANILINE	µg/kg	NA	895 U	354 U	697 U	729 U



Table F-4  
SA5-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A	Slope Area 5A
		Location Type	Post-Construction	Post-Construction	Post-Construction	Post-Construction	Post-Construction
		Location ID	PSTC-SA5A-17	PSTC-SA5A-COMP-01	PSTC-SA5A-COMP-02	PSTC-SA5A-COMP-03	PSTC-SA5A-COMP-04
		Field Sample ID	PSTC-SA5A-17-051413	PSTC-SA5A-COMPOSITE-01-051413	PSTC-SA5A-COMPOSITE-02-051413	PSTC-SA5A-COMPOSITE-03-051413	PSTC-SA5A-COMPOSITE-04-051413
		Sampling Date	5/14/2013	5/14/2013	5/14/2013	5/14/2013	5/14/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	ANTHRACENE	µg/kg	NA	37.4	22.5	97.9	76.9
8270	BENZO(A)ANTHRACENE	µg/kg	NA	205	125	505	499
8270	BENZO[A]PYRENE	µg/kg	NA	244	140	598	600
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	399	203	901	1070
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	229	138	521	513
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	124	84.4	340	317
8270	BENZYL ALCOHOL	µg/kg	NA	895 U	354 U	697 U	729 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	271 U	107 U	211 U	221 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	2040	75.1 U	162	2220
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	190 U	75.1 U	148 U	155 U
8270	CARBAZOLE	µg/kg	NA	136 U	53.6 U	133	111
8270	CHRYSENE	µg/kg	NA	307	159	711	761
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	45.5	26.4	108	117
8270	DIBENZOFURAN	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	DIETHYL PHTHALATE	µg/kg	NA	190 U	75.1 U	148 U	155 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	190 U	75.1 U	148 U	155 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	190 U	75.1 U	148 U	155 U
8270	FLUORANTHENE	µg/kg	NA	529	282	1570	1470
8270	FLUORENE	µg/kg	NA	19.2	10.8	89	43.7
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	18.1 U	7.16 U	14.1 U	14.7 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	895 U	354 UJ	697 U	729 U
8270	HEXACHLOROETHANE	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	187	113	452	449
8270	ISOPHORONE	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	25.7	9.67	52.7	27.4
8270	NITROBENZENE	µg/kg	NA	271 U	107 U	211 U	221 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	407 U	161 U	317 U	331 U
8270	PHENANTHRENE	µg/kg	NA	316	146	1080	670
8270	PHENOL	µg/kg	NA	136 U	53.6 U	106 U	110 U
8270	PYRENE	µg/kg	NA	483	261	1310	1290
8270	PYRIDINE	µg/kg	NA	271 U	107 U	211 U	221 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R = RPD above laboratory control limit  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

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**ATTACHMENT F-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 1

**Direction:** North

**Subject:** Tree removal

**Date:** 10/9/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 2

**Direction:** North

**Subject:** Tree removal

**Date:** 10/9/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 3

**Direction:** South

**Subject:** Eastern bank after the removal of trees lining the bank

**Date:** 10/11/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 4

**Direction:** West

**Subject:** Excavation of sump for creek water bypass pump system

**Date:** 3/19/13

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 5

**Direction:** Down

**Subject:** Trench boxes placed for creek water bypass pump system

**Date:** 3/19/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 6

**Direction:** Northeast

**Subject:** Moving a section of bypass pump system discharge pipe

**Date:** 3/19/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 7  
**Direction:** Northeast  
**Subject:** Bypass piping on the west bank

**Date:** 3/20/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 8  
**Direction:** West  
**Subject:** Placement of bypass pumps

**Date:** 3/21/13  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 9

**Direction:** West

**Subject:** Creek water bypass pump

**Date:** 3/25/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 10

**Direction:** Northwest

**Subject:** Bypass pump

**Date:** 3/25/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 11  
**Direction:** Southwest  
**Subject:** Southwest view of area to be excavated

**Date:** 3/26/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 12  
**Direction:** East  
**Subject:** Placement of gabion baskets at the northern end

**Date:** 3/26/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 13

**Direction:** Down

**Subject:** Placement of bypass pipes on gabion baskets

**Date:** 3/26/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 14

**Direction:** North

**Subject:** Bypass pumps and fuel container

**Date:** 3/27/13

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 15

**Direction:** Northeast

**Subject:** Sipper wells located along the eastern bank

**Date:** 3/27/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 16

**Direction:** West

**Subject:** Sheet pile wall at the northern end

**Date:** 3/28/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 17

**Direction:** North

**Subject:** Power washing truck tires prior to departure from staging area

**Date:** 4/8/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 18

**Direction:** Southwest

**Subject:** Excavation of contaminated sediment

**Date:** 4/9/13

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 19  
**Direction:** East  
**Subject:** Turbidity monitor located upstream

**Date:** 4/10/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 20  
**Direction:** Northeast  
**Subject:** Excavation activities

**Date:** 5/6/13  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 21  
**Direction:** Southeast  
**Subject:** Excavation activities

**Date:** 5/7/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 22  
**Direction:** Southwest  
**Subject:** Restoration activities

**Date:** 5/14/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 23  
**Direction:** South  
**Subject:** Removal of the south cofferdam

**Date:** 5/15/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 24  
**Direction:** Southwest  
**Subject:** Removal of swamp mats after excavation

**Date:** 5/16/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 25  
**Direction:** Southeast  
**Subject:** Loading out bypass pump

**Date:** 5/17/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 26  
**Direction:** South  
**Subject:** Leveling eastern bank

**Date:** 5/17/13  
**Photographer:** Michael Browning





**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 27  
**Direction:** North  
**Subject:** Re-grading eastern bank at north end

**Date:** 5/17/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A  
**Photograph No.:** 28  
**Direction:** Southwest  
**Subject:** Restoration activities

**Date:** 5/17/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 29

**Direction:** Northwest

**Subject:** Removal of discharge pipe

**Date:** 5/17/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site – SA5-A

**Photograph No.:** 30

**Direction:** Southwest

**Subject:** Washing pavement on Dutton Street

**Date:** 5/21/13

**Photographer:** Michael Browning

## **APPENDIX G**

### **SLOPE AREA 3-A REPORT PORTAGE CREEK AREA SITE**



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## **LIST OF ATTACHMENTS**

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- G-A Photographic Documentation

## **1. SLOPE AREA BACKGROUND**

### **1.1 DESCRIPTION**

SA3-A is located in downtown Kalamazoo, Michigan, just south of East Michigan Avenue near the intersection of East Michigan Avenue and Pitcher Street. The approximate geographic coordinates are latitude 42.2911° North and longitude -85.5761° West (**Figure G-1**). The entire footprint of the excavation area encompasses approximately 16,130 ft<sup>2</sup>. SA3-A is surrounded by both light industrial and commercial businesses in an urban setting. Portage Creek flows from south to north.

The entire excavation area was divided into eight excavation grids. Seven grids were located within the creek channel, while one grid was situated in a floodplain along the eastern side of the creek (**Figure G-2**).

### **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from two property owners, providing access to the excavation area from East Michigan Avenue to the north and Gibson Street to the south. The property owners granted EPA and its contractors permission to establish access roads and staging areas, to conduct contaminated sediment excavation operations, and to restore properties after excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

### **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm excavation depths within each excavation grid, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal assessment to document existing Site conditions

- Installation of environmental controls to minimize impact of excavation activities on original Site features
- Clearing and grubbing to allow physical access to excavation area
- Collection of pre-construction soil samples from support areas
- Construction of a temporary staging area and access roads, as necessary
- Collection of soil boring samples from a railroad bed to confirm the soil's use as backfill
- Construction of sheet pile cofferdams
- Installation and operation of a by-pass pumping system and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation and verification sediment samples obtained from excavation grids
- Removal of all environmental controls, access roads, staging areas and pump systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from support areas
- Development of an area-specific restoration plan in coordination with property owner(s)

After completion of the Site set-up activities (i.e., installation of the by-pass and groundwater diversion systems, construction of the cofferdams, and installation of environmental controls), ERRS excavated non-TSCA PCB-contaminated sediment from all eight excavation grids, beginning with the floodplain grid located on the eastern bank (Grid 3). Additional information on excavation activities is provided in Section 3.

A total of twenty-two in-stream sediment core samples from seven different locations, six floodplain sediment core samples from three different locations, fifty eight pre-construction soil samples (including five duplicate samples), eight confirmation sediment samples; two verification sediment samples; eighteen node sediment samples, and fifty five post-construction soil samples (including five duplicate samples) were collected prior to, during, and after excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 - 4.3.

Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information for these activities is provided in Section 5.2.

## **2. PRE-REMOVAL ACTIVITIES**

This section discusses pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment G-A** provides photographic documentation of selected pre-removal activities.

### **2.1 PRE-REMOVAL SAMPLING ACTIVITIES**

ERRS and START performed pre-excavation sediment sampling in October 2012. A total of seven sediment cores were collected from seven in-stream grids, while three sediment cores were collected from the floodplain grid located along the eastern bank. These cores were processed and sampled in approximately 12-inch intervals. All analytical data results for pre-removal sediment samples are presented in **Table G-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses to be conducted. The intent of this sampling was to confirm vertical extent of contamination, to determine if contaminant levels were below TSCA landfill disposal parameters, and to finalize the sediment excavation depths within each grid. The samples were shipped to ALS Global Laboratory of Holland, Michigan, for PCB analysis. The analytical results verified that sediment contaminant levels for PCBs were below TSCA disposal limits. As such, the sediment was excavated as non-TSCA sediment.

### **2.2 PRE-REMOVAL FEATURES ASSESSMENT**

START recorded photographic and video documentation of pre-removal features, access roads, north and south entrances, and surrounding areas. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal assessment of in-place constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment, Removal Areas SA3-A, SA3B and SA3-Access” (Fleis and Vandenbrink Engineering Inc., August 2012) is available upon request. This assessment was used to determine if any corrective actions

or repairs were required once excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of Access Roads**

A sub-contractor cleared vegetative cover that restricted excavation operations, including overgrown brush, grass, bushes, and trees. Most of the western bank was cleared to allow for grid excavation and load-out activities. The entire eastern bank and floodplain were cleared to allow for installation of the by-pass pumping system discharge pipelines. In order to maintain soil stability, all clearing and grubbing activities were completed in a manner that protected root masses of the trees in the overall work area.

The area immediately north of the excavation area was cleared and widened to accommodate a support area, staging pad, and access road. The area to the south of the excavation area was cleared to accommodate a support area for by-pass pumps, isolation dewatering system, and fuel truck access. Access roads were constructed using 1-inch by 3-inch limestone rock extending from East Michigan Avenue to the support area and from Gibson Street to the bypass pump staging pad. Roadway signage was placed indicating the truck entrance and presence of a flagger to the west of the north entrance in accordance with MDOT requirements and specifications.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-excavation topographic survey of the excavation area in April 2013. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for measuring the contaminated sediment excavation within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during the excavation activities. The RTK-GPS equipment ensured that operators were excavating sediment and backfilling each grid to targeted lateral and vertical limits of each grid.



### **2.3.3 Excavation Area Isolation and Dewatering**

Subcontractors constructed two sheet pile cofferdams to isolate the excavation area and to facilitate dewatering of the contaminated sediments. The first cofferdam was located in Grid 1, while the second cofferdam was located in Grid 8 (**Figure G-2**). The cofferdams were located within Grids 1 and 8 due to the proximity to railroad bridges and presence of buried utilities (fiber optic and telephone cables) within the grids. To further dry out the creek channel, another subcontractor installed a series of groundwater extraction wells along the eastern and western banks of the excavation grids. An additional perimeter system was installed along the perimeter of Grid 3 located in the floodplain. Both setups consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5ft centers to an approximate depth of 10 feet below the creek bottom. The sipper wells were connected to a 6-inch PVC manifold pipe via flexible tubing. The manifold pipe was connected to 6-inch vacuum pumps that discharged groundwater past the downstream isolation cofferdam. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system was operated 24 hours per day until all excavation and backfilling activities were completed.

### **2.3.4 By-Pass Pumping**

The by-pass pumping system consisted of three 18-inch pumps, a 12-inch pump, and an 8-inch back-up pump installed by a subcontractor next to the upstream cofferdam on the eastern creek bank. The system captured creek water upstream of the southern (upstream) cofferdam and pumped it past the northern (downstream) cofferdam, discharging onto a rock discharge pad consisting of wire gabion baskets filled with large stones. The gabion baskets dissipated the water flow velocity and thus minimized erosion of the creek channel bottom. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed.

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize impact of excavation activities. Many of the environmental controls are specified in the SESC Plan. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.

- Construction Entrance/Exit - Site access was established on the south side of East Michigan Avenue and the north side of Gibson Street. Access roads consisted of an 8-ounce geotextile fabric underlayment with a 6-inch-thick layer of 1-inch to 3-inch rock. Access roads were approximately 15 feet wide.
- Tire Wash Station - A portable tire wash station was set up between the support area and north access road described above. After each truck was loaded, a crew member sprayed off soil from truck tires as the truck passed through the station prior to exiting the Site. Wash waters were pumped to a temporary storage tank and trucked to the WWTP to maintain suitable storage capacity.
- Paved Surface Management - A power broom performed housekeeping of paved work areas and around the construction entrances on East Michigan Avenue and Gibson Street.
- Dust Control - A water truck applied water for dust control within staging areas and truck entrances/exits as necessary.
- Fuel Station - A 300-gallon temporary fuel tank with secondary containment was stationed at the staging area. In addition, two 1,000-gallon temporary fuel tanks with secondary containment were stationed adjacent to the by-pass pumps. Fire extinguishers and an emergency spill control kit were placed near the fuel tank. The spill kit included drums, oil dry, adsorbent pads, and a boom to address small spills.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along both sides of the creek to stabilize sediments and to prevent erosion into the creek channel.
- Upstream Debris Screen - A wire mesh screen was placed across the creek channel approximately 50 feet upstream of the by-pass pump intake pipes. This screen, which was cleared on a daily basis by EQM workers, removed any floating debris and prevented the debris from entering and clogging or blocking the pump intake pipes.
- Rock Discharge Pads - A rock discharge pad was installed, downstream of the isolated area, where the discharge lines released the captured water. The rock discharge pads consisted of wire gabion baskets filled with rip-rap stones to dissipate discharge velocity and reduce erosion of the creek bed.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the cofferdams installed in the slope area. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### **3. EXCAVATION/DISPOSAL ACTIVITIES**

Excavation of contaminated sediments commenced in the floodplain (Grid 3) on the eastern bank because this grid was on the opposite bank from the support area. **Attachment G-A** provides

photographic documentation of the excavation activities. The table below lists excavation details, including targeted excavation depths. Grid 3 was excavated to the targeted depth and backfilled with existing on-site soils contained within an earthen berm as approved by the property owner. The excavation then continued in the actual creek channel, proceeding south to north in Grids 1, 2, 4, 5, 6, 7, and 8.

### SA3-A EXCAVATION DETAILS

Grid	Target Excavation Depth (inches bss)	Final Excavation Depth (inches bss)	Surface Area of Excavated Sediment (ft <sup>2</sup> )	Volume of Excavated Sediment (yd <sup>3</sup> )
1	30	49	647	98
2	30	51	1264	199
3	30	36	3837	426
4	30	52	1405	226
5	30	52	1547	248
6	30	50	1717	265
7	30	48	2407	357
8	30	48	1020	151

bss = Below ground surface

ft<sup>2</sup> = square feet

yd<sup>3</sup> = Cubic yard

In order to access contaminated sediments, a long reach excavator was positioned on timber mats, placed along the west creek bank, or on constructed decks extending into the creek channel. If sediments were sufficiently dry, the long reach excavator loaded excavated material directly into tri-axle dump trucks that were capable of hauling approximately 10-yd<sup>3</sup> of sediment. After loading, dump trucks hauled the sediment directly to the John Street staging pad. If sediments were too wet for direct shipment, excavated material was loaded into a 20-yd<sup>3</sup> mixing box, where a corn cob-based absorbent material was mixed in by a second excavator, solidifying the sediment prior to shipment to the John Street staging pad. This practice avoided any leakage of potentially contaminated liquids from dump trucks onto roadways between the excavation area and the John Street staging pad. Tri-axle dump trucks followed a specified truck route specified in the TCP.

An old, decommissioned railroad bridge crossed the excavation area in Grids 6 and 7. To avoid removing or damaging the structure, a small “mini” excavator was lowered into the creek channel to excavate contaminated sediments from around the many bridge supports extending down into the creek bottom. The “mini” excavator dragged the contaminated sediments out from under the

bridge so that the long reach excavator could reach and remove the material from the creek channel.

All contaminated sediments were transported to the John Street staging area, where tri-axle dump trucks emptied their loads onto a staging pad designed to contain contaminated sediments along with any residual water or run-off from precipitation. Before returning to the excavation support area, the tri-axle dump trucks passed through a tire wash station positioned on the staging pad. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils on the creek banks and in support areas. Support areas were divided into 2,500-ft<sup>2</sup> sampling grids for analysis of PCBs and 10,000-ft<sup>2</sup> sampling areas for analysis for TCL VOCs and SVOCs, TCL pesticides and herbicides, TAL metals, and PCBs. All analytical data results for pre-construction soil samples are presented in **Table G-2**. Analytical data validation reports are available upon request.

Soil samples from forty-two 2,500-ft<sup>2</sup> grids were sampled for PCBs, and eleven composite soil samples were collected from the 10,000-ft<sup>2</sup> areas. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500-ft<sup>2</sup> grid. A composite sample of four 2,500-ft<sup>2</sup> grids was generated from the residual sample material obtained from the six-point composite samples, representing 10,000 ft<sup>2</sup>.

### **4.2 CONFIRMATION, VERIFICATION, AND NODE SEDIMENT SAMPLING**

During and after excavation of contaminated sediments, START and EPA collected confirmation, verification, and node sediment samples. Verification sampling was conducted in certain grids where visual evidence of paper sludge or heavily stained soils was observed at original target

depths specified in the Technical Memorandum. The purpose of the verification sampling was to confirm whether or not PCB contamination still existed, warranting further excavation to meet cleanup standards. All analytical data results for the confirmation, verification, and node sediment samples are presented in **Table G-3**. Analytical data validation reports are available upon request.

Verification samples were collected from Grids 2 and 5 at the original target depths of 30 and 36 inches below the sediment surface, respectively. Verification samples were not taken from all grids for cost and time efficiency considerations. In other grids, if visual evidence of paper sludge or heavily stained soils was observed at original target depths, excavation continued beyond the target depth until the grids were visibly clean of contaminated sediment. Confirmation samples were collected from Grids 1 through 8 at final excavation depths.

For confirmation and verification sediment samples, one six-point composite sample was collected in each grid for PCB analysis. Results were evaluated against the following performance standards:

- For designated stream sediments, less than or equal to 10 mg/kg of PCBs, with a performance standard goal of 1 mg/kg
- For designated PCB-contaminated floodplain and bank soils, within the Portage Creek Area, 10 mg/kg, with a performance standard goal of 5 mg/kg

Node samples were collected from Grids 2, 3, and 4 for statistical analysis of project quality objectives. The six discrete node locations used for each node sample coincided with the six node locations used for composite confirmation samples.

### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as pre-construction samples, and used the same grid areas and sample node locations, with the exception of Grids 17 and 18 on the eastern bank due to the lack of construction activity in these grids. All analytical data results for post-construction soil samples are presented in **Table G-4**. Analytical data validation reports are available upon request.

Forty individual 2,500-ft<sup>2</sup> grids and ten 10,000-ft<sup>2</sup> areas were sampled. Four duplicates were collected from the 2,500-ft<sup>2</sup> grids and one duplicate from the 10,000-ft<sup>2</sup> areas. The individual grab

samples, which were analyzed for PCBs, were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. All composited samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals and PCBs. To ensure that work activities did not result in contaminating support areas, results of post-construction samples were compared to results of pre-construction samples.

#### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-Site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the excavation areas during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure G-3** shows the DataRAM monitoring locations.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

### **5. POST-REMOVAL ACTIVITIES**

#### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Areas SA3-A, SA3B and SA3-Access” (Fleis and Vandenbrink Engineering Inc. August 2013), available upon request.

#### **5.2 RESTORATION**

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment G-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing Site infrastructure and equipment required to conduct sediment excavation operations and making any necessary repairs to the property and/or



constructed features resulting from sediment excavation operations. The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until vegetation was re-established (see Section 5.2.2).

### **5.2.1 Bank Stabilization and Creek Channel Backfilling**

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the eastern and western banks of Portage Creek. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inches) were placed every three feet on the waterside and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.

Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from the excavation activities. All corrective actions necessary to repair any damaged features resulting from sediment excavation operations were completed. EPA coordinated with appropriate stakeholders to verify their acceptance of Site repairs and conducted final Site walk-through inspections with property owners.

### **5.2.2 Re-vegetation**

Once the overall area was re-graded, a temporary grass seed/fertilizer mix was applied along with straw or coir matting to prevent erosion as specified in the Restoration Plan. An area-specific restoration plan was completed (available upon request) in coordination with the property owners in accordance with the overall Site Restoration Plan. Due to the fact that this area is the future Site of a wetland mitigation project and “urban nature park” area, to be established by the Kalamazoo Nature Center, the property owners requested that EPA forgo final restoration activities. As a result, staff from the Kalamazoo Nature Center will plant the vegetation once the excavation and wetland construction activities are complete.

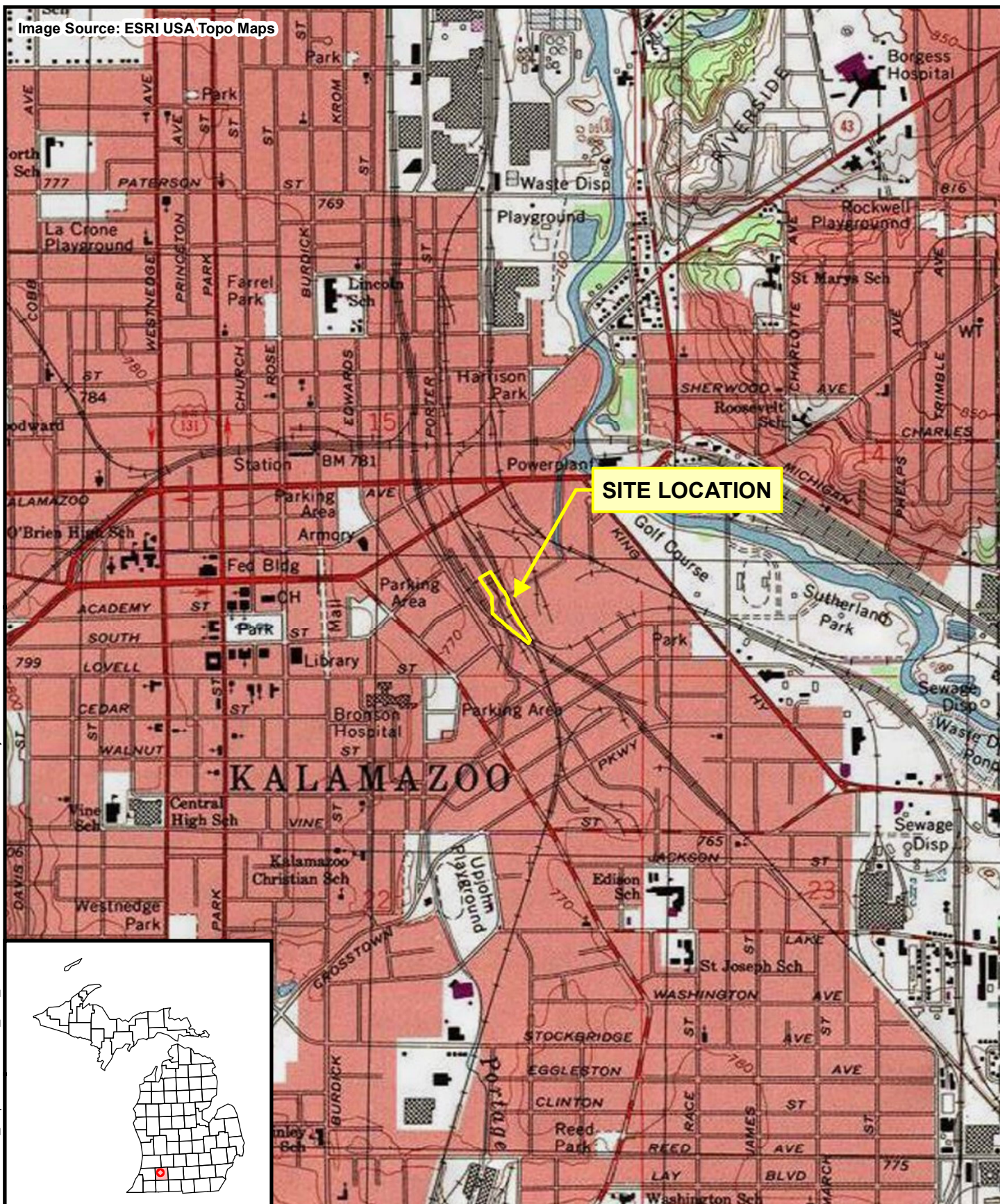
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## FIGURES

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Image Source: ESRI USA Topo Maps



# Legend

Site Boundary

0 2,000 Feet



Prepared For:  
U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
**WESTON  
SOLUTIONS, INC**

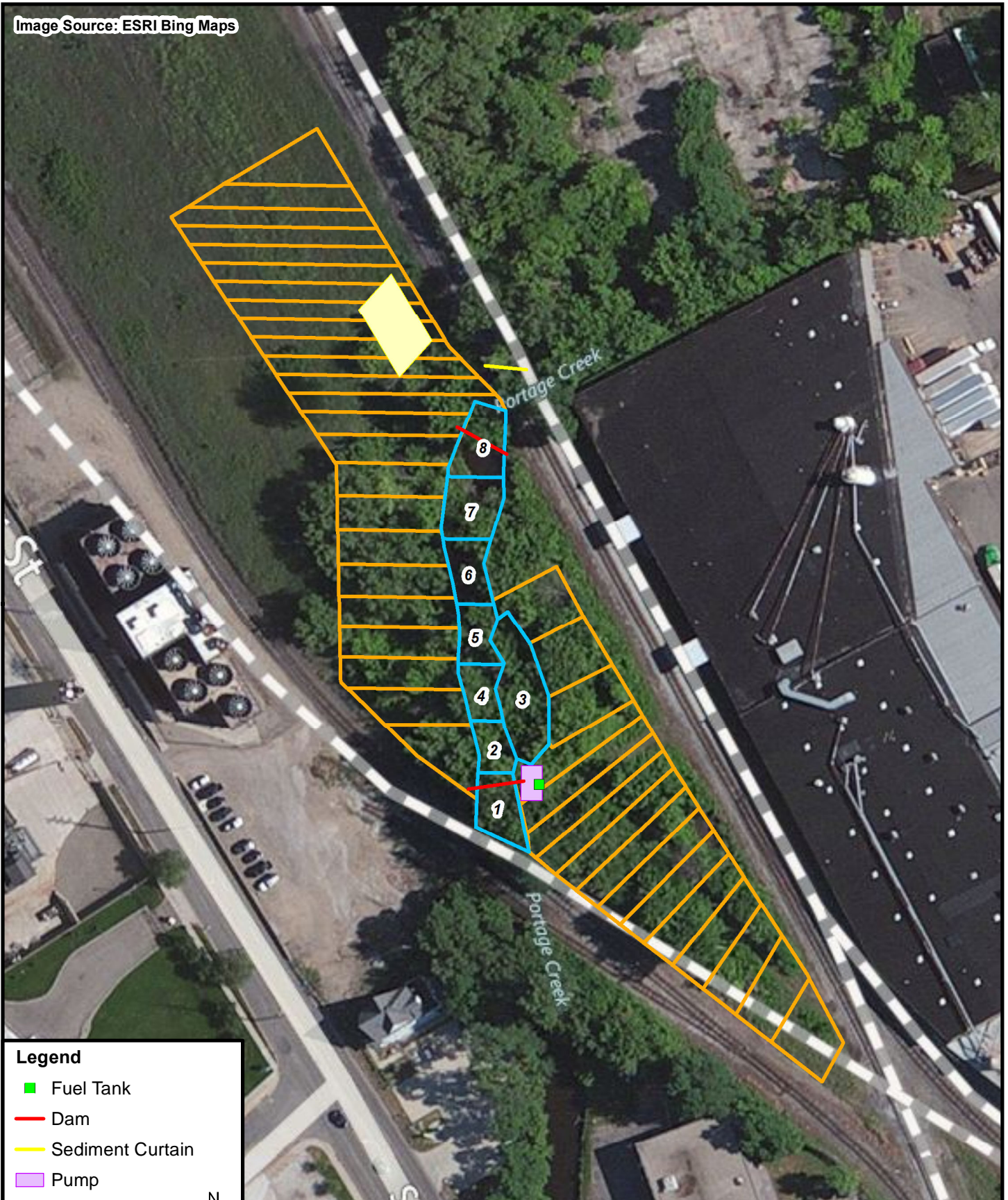
360 East Maple Road  
Suite R  
Troy, Michigan 48083

## Figure G-1

Site Location Map  
Portage Creek Area SA3-A  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



#### Legend

- Fuel Tank
- Dam
- Sediment Curtain
- Pump
- Truck Wash
- Removal Grids
- Construction Grids

0 150  
Feet



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TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
**WESTON  
SOLUTIONS, INC**

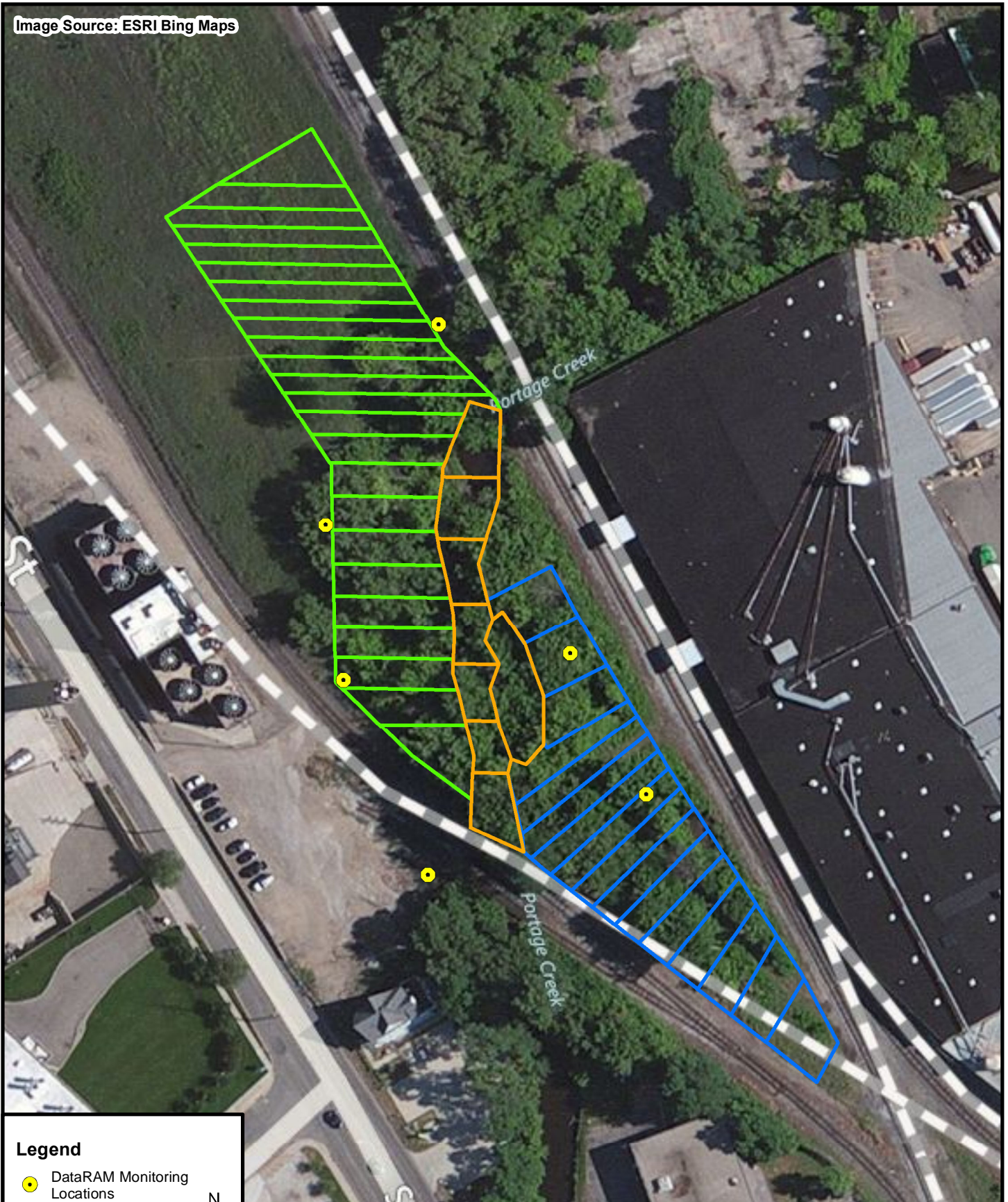
360 East Maple Road  
Suite R  
Troy, Michigan 48083

#### Figure G-2





Site Features/Setup Map  
Portage Creek Area SA3-A  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



#### Legend

-  DataRAM Monitoring Locations
  -  Excavation Grids
  -  East Sampling Grids
  -  West Sampling Grids
- 0 150 Feet



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DCN: 1526-2A-BJNH



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**Figure G-3**  
DataRAM Monitoring Location Map  
Portage Creek Area SA3-A  
Kalamazoo, Kalamazoo County,  
Michigan



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## TABLES

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Table G-1  
SA3-A Pre-Removal Sediment Sample Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA3A-1	PRSD-SA3A-1	PRSD-SA3A-1	PRSD-SA3A-2	PRSD-SA3A-2	PRSD-SA3A-2	PRSD-SA3A-2	PRSD-SA3A-3	PRSD-SA3A-3	PRSD-SA3A-4
		Sampling Date	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/15/2012
		Depth Interval (inches bss)	0- 12	12- 24	24- 39	0- 12	12- 24	24- 34	34- 46	0- 12	12- 24	12- 24
Analytical Method	Chemical Name	Unit										
8082	AROCLOR 1016	mg/kg	0.045 U	0.052 U	0.075 U	0.05 U	0.06 U	0.048 U	0.056 U	0.045 U	0.065 U	0.075 U
8082	AROCLOR 1221	mg/kg	0.045 U	0.052 U	0.075 U	0.05 U	0.06 U	0.048 U	0.056 U	0.045 U	0.065 U	0.075 U
8082	AROCLOR 1232	mg/kg	0.045 U	0.052 U	0.075 U	0.05 U	0.06 U	0.048 U	0.056 U	0.045 U	0.065 U	0.075 U
8082	AROCLOR 1242	mg/kg	0.16	3.2	1.4	2	2.2	0.048 U	2	0.23	0.35	5.1
8082	AROCLOR 1248	mg/kg	0.045 U	0.052 U	0.075 U	0.05 U	0.06 U	0.048 U	0.056 U	0.045 U	0.065 U	0.075 U
8082	AROCLOR 1254	mg/kg	0.12	0.74	0.61	0.27	0.38	0.048 U	0.29	0.088	0.065 U	5.7
8082	AROCLOR 1260	mg/kg	0.045 U	0.052 U	0.075 U	0.05 U	0.06 U	0.048 U	0.056 U	0.045 U	0.065 U	0.075 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.28	3.94	2.01	2.27	2.58	0 U	2.29	0.318	0.35	10.8

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA3A-4	PRSD-SA3A-4	PRSD-SA3A-4	PRSD-SA3A-5	PRSD-SA3A-5	PRSD-SA3A-5	PRSD-SA3A-6	PRSD-SA3A-6	PRSD-SA3A-6	PRSD-SA3A-6
		Sample Date	10/15/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012	10/16/2012
		Depth Interval	24- 36	0- 12	36- 40	0- 12	12- 24	24- 39	0- 12	12- 24	24- 28	28- 40
Analytical Method	Chemical Name	Unit										
8082	AROCLOR 1016	mg/kg	0.078 U	0.05 U	0.055 U	0.055 U	0.062 U	0.08 U	0.048 U	0.05 U	0.044 U	0.047 U
8082	AROCLOR 1221	mg/kg	0.078 U	0.05 U	0.055 U	0.055 U	0.062 U	0.08 U	0.048 U	0.05 U	0.044 U	0.047 U
8082	AROCLOR 1232	mg/kg	0.078 U	0.05 U	0.055 U	0.055 U	0.062 U	0.08 U	0.048 U	0.05 U	0.044 U	0.047 U
8082	AROCLOR 1242	mg/kg	0.078 U	0.51	0.055 U	0.32	3.2	0.08 U	0.47	0.16	0.044 U	0.51
8082	AROCLOR 1248	mg/kg	0.078 U	0.05 U	0.055 U	0.055 U	0.062 U	0.08 U	0.048 U	0.05 U	0.044 U	0.047 U
8082	AROCLOR 1254	mg/kg	0.078 U	0.15	0.055 U	0.091	0.51	0.08 U	0.12	0.05 U	0.044 U	0.13
8082	AROCLOR 1260	mg/kg	0.078 U	0.05 U	0.055 U	0.055 U	0.062 U	0.08 U	0.048 U	0.05 U	0.044 U	0.047 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.66	0 U	0.411	3.71	0 U	0.59	0.16	0 U	0.64

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA3A-7	PRSD-SA3A-7	PRSD-SA3A-FP-1	PRSD-SA3A-FP-1	PRSD-SA3A-FP-2	PRSD-SA3A-FP-2	PRSD-SA3A-FP-3	PRSD-SA3A-FP-3
		Sample Date	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
		Depth Interval	0- 12	12- 22	0- 12	12- 25	0- 12	12- 20	0- 12	12- 22
Analytical Method	Chemical Name	Unit								
8082	AROCLOR 1016	mg/kg	0.048 U	0.049 U	0.076 U	0.053 U	0.08 U	0.062 U	0.096 U	0.072 U
8082	AROCLOR 1221	mg/kg	0.048 U	0.049 U	0.076 U	0.053 U	0.08 U	0.062 U	0.096 U	0.072 U
8082	AROCLOR 1232	mg/kg	0.048 U	0.049 U	0.076 U	0.053 U	0.08 U	0.062 U	0.096 U	0.072 U
8082	AROCLOR 1242	mg/kg	3.8	0.66	4.5	1.3	12	2.4	7.7	2.1
8082	AROCLOR 1248	mg/kg	0.048 U	0.049 U	0.076 U	0.053 U	0.08 U	0.062 U	0.096 U	0.072 U
8082	AROCLOR 1254	mg/kg	2.2	0.068	1.7	0.41	3.2	0.64	2.5	0.86
8082	AROCLOR 1260	mg/kg	0.048 U	0.049 U	0.076 U	0.053 U	0.08 U	0.062 U	0.096 U	0.072 U
8082	Total PCBs (Sum of Detections)	mg/kg	6	0.728	6.2	1.71	15.2	3.04	10.2	2.96

Notes:  
bss = Below sediment surface  
ID = Identification  
mg/kg = Milligram per kilogram  
PCB = Polychlorinated biphenyl  
U = Undetected at specified reporting limit

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-01	PREC-SA3A-02	PREC-SA3A-03	PREC-SA3A-04	PREC-SA3A-05	PREC-SA3A-05
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-01	PREC-SA3A-02	PREC-SA3A-03	PREC-SA3A-04	PREC-SA3A-05	PREC-SA3A-05
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	AROCLOR 1221	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	AROCLOR 1232	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	AROCLOR 1242	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	AROCLOR 1248	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	AROCLOR 1254	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	AROCLOR 1260	mg/kg	0.0456 U	0.0411 U	0.0433 U	0.0438 U	0.0429 U	0.0413 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-01	PREC-SA3A-02	PREC-SA3A-03	PREC-SA3A-04	PREC-SA3A-05	PREC-SA3A-05
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-01	PREC-SA3A-02	PREC-SA3A-03	PREC-SA3A-04	PREC-SA3A-05	PREC-SA3A-05
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-01	PREC-SA3A-02	PREC-SA3A-03	PREC-SA3A-04	PREC-SA3A-05	PREC-SA3A-05
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-01	PREC-SA3A-02	PREC-SA3A-03	PREC-SA3A-04	PREC-SA3A-05	PREC-SA3A-05
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O- TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-06	PREC-SA3A-07	PREC-SA3A-08	PREC-SA3A-09	PREC-SA3A-10	PREC-SA3A-11
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-06	PREC-SA3A-07	PREC-SA3A-08	PREC-SA3A-09	PREC-SA3A-10	PREC-SA3A-11
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0444 U
8082	AROCLOR 1221	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0444 U
8082	AROCLOR 1232	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0444 U
8082	AROCLOR 1242	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0444 U
8082	AROCLOR 1248	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0555 J
8082	AROCLOR 1254	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0444 U
8082	AROCLOR 1260	mg/kg	0.0413 U	0.0403 U	0.0765 U	0.0429 U	0.0611 U	0.0444 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0.0555
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-06	PREC-SA3A-07	PREC-SA3A-08	PREC-SA3A-09	PREC-SA3A-10	PREC-SA3A-11
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-06	PREC-SA3A-07	PREC-SA3A-08	PREC-SA3A-09	PREC-SA3A-10	PREC-SA3A-11
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-06	PREC-SA3A-07	PREC-SA3A-08	PREC-SA3A-09	PREC-SA3A-10	PREC-SA3A-11
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-06	PREC-SA3A-07	PREC-SA3A-08	PREC-SA3A-09	PREC-SA3A-10	PREC-SA3A-11
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-12	PREC-SA3A-13	PREC-SA3A-13	PREC-SA3A-14	PREC-SA3A-15	PREC-SA3A-16
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-12	PREC-SA3A-13	PREC-SA3A-13	PREC-SA3A-14	PREC-SA3A-15	PREC-SA3A-16
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0692 U	0.045 U	0.048 U	0.0453 U	0.0457 U	0.0415 U
8082	AROCLOR 1221	mg/kg	0.0692 U	0.045 U	0.048 U	0.0453 U	0.0457 U	0.0415 U
8082	AROCLOR 1232	mg/kg	0.0692 U	0.045 U	0.048 U	0.0453 U	0.0457 U	0.0415 U
8082	AROCLOR 1242	mg/kg	0.0692 U	0.045 U	0.048 U	0.0453 U	0.0457 U	0.0415 U
8082	AROCLOR 1248	mg/kg	0.0692 U	0.116	0.104	0.0453 U	0.0457 U	0.0415 U
8082	AROCLOR 1254	mg/kg	0.0692 U	0.045 U	0.048 U	0.0453 U	0.0457 U	0.0415 U
8082	AROCLOR 1260	mg/kg	0.0692 U	0.0507	0.0848 J	0.0453 U	0.0457 U	0.0415 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.1667	0.1888	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-12	PREC-SA3A-13	PREC-SA3A-13	PREC-SA3A-14	PREC-SA3A-15	PREC-SA3A-16
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-12	PREC-SA3A-13	PREC-SA3A-13	PREC-SA3A-14	PREC-SA3A-15	PREC-SA3A-16
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-12	PREC-SA3A-13	PREC-SA3A-13	PREC-SA3A-14	PREC-SA3A-15	PREC-SA3A-16
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-12	PREC-SA3A-13	PREC-SA3A-13	PREC-SA3A-14	PREC-SA3A-15	PREC-SA3A-16
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-17	PREC-SA3A-18	PREC-SA3A-19	PREC-SA3A-20	PREC-SA3A-21	PREC-SA3A-22
		Sampling Date	3/25/2013	3/25/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-17	PREC-SA3A-18	PREC-SA3A-19	PREC-SA3A-20	PREC-SA3A-21	PREC-SA3A-22
		Sampling Date	3/25/2013	3/25/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0422 U	0.0448 U	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	AROCLOR 1221	mg/kg	0.0422 U	0.0448 U	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	AROCLOR 1232	mg/kg	0.0422 U	0.0448 U	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	AROCLOR 1242	mg/kg	0.0422 U	0.0448 U	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	AROCLOR 1248	mg/kg	0.0742	0.264	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	AROCLOR 1254	mg/kg	0.0422 U	0.0448 U	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	AROCLOR 1260	mg/kg	0.0422 U	0.075	0.0448 U	0.0441 U	0.0439 U	0.0434 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.0742	0.339	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-17	PREC-SA3A-18	PREC-SA3A-19	PREC-SA3A-20	PREC-SA3A-21	PREC-SA3A-22
		Sampling Date	3/25/2013	3/25/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-17	PREC-SA3A-18	PREC-SA3A-19	PREC-SA3A-20	PREC-SA3A-21	PREC-SA3A-22
		Sampling Date	3/25/2013	3/25/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-17	PREC-SA3A-18	PREC-SA3A-19	PREC-SA3A-20	PREC-SA3A-21	PREC-SA3A-22
		Sampling Date	3/25/2013	3/25/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-17	PREC-SA3A-18	PREC-SA3A-19	PREC-SA3A-20	PREC-SA3A-21	PREC-SA3A-22
		Sampling Date	3/25/2013	3/25/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-23	PREC-SA3A-24	PREC-SA3A-25	PREC-SA3A-25	PREC-SA3A-26	PREC-SA3A-27
		Sampling Date	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-23	PREC-SA3A-24	PREC-SA3A-25	PREC-SA3A-25	PREC-SA3A-26	PREC-SA3A-27
		Sampling Date	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	AROCLOR 1221	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	AROCLOR 1232	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	AROCLOR 1242	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	AROCLOR 1248	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	AROCLOR 1254	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	AROCLOR 1260	mg/kg	0.045 U	0.0423 U	0.0438 U	0.0476 U	0.0433 U	0.048 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-23	PREC-SA3A-24	PREC-SA3A-25	PREC-SA3A-25	PREC-SA3A-26	PREC-SA3A-27
		Sampling Date	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-23	PREC-SA3A-24	PREC-SA3A-25	PREC-SA3A-25	PREC-SA3A-26	PREC-SA3A-27
		Sampling Date	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-23	PREC-SA3A-24	PREC-SA3A-25	PREC-SA3A-25	PREC-SA3A-26	PREC-SA3A-27
		Sampling Date	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-23	PREC-SA3A-24	PREC-SA3A-25	PREC-SA3A-25	PREC-SA3A-26	PREC-SA3A-27
		Sampling Date	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013	3/26/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-28	PREC-SA3A-29	PREC-SA3A-30	PREC-SA3A-31	PREC-SA3A-31	PREC-SA3A-32
		Sampling Date	3/26/2013	3/26/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-28	PREC-SA3A-29	PREC-SA3A-30	PREC-SA3A-31	PREC-SA3A-31	PREC-SA3A-32
		Sampling Date	3/26/2013	3/26/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0487 U	0.0462 U	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	AROCLOR 1221	mg/kg	0.0487 U	0.0462 U	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	AROCLOR 1232	mg/kg	0.0487 U	0.0462 U	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	AROCLOR 1242	mg/kg	0.0487 U	0.0462 U	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	AROCLOR 1248	mg/kg	0.0487 U	0.0462 U	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	AROCLOR 1254	mg/kg	0.0487 U	0.0462 U	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	AROCLOR 1260	mg/kg	0.0487 U	0.0474	0.0439 U	0.0415 U	0.0427 U	0.0475 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.0474	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-28	PREC-SA3A-29	PREC-SA3A-30	PREC-SA3A-31	PREC-SA3A-31	PREC-SA3A-32
		Sampling Date	3/26/2013	3/26/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-28	PREC-SA3A-29	PREC-SA3A-30	PREC-SA3A-31	PREC-SA3A-31	PREC-SA3A-32
		Sampling Date	3/26/2013	3/26/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-28	PREC-SA3A-29	PREC-SA3A-30	PREC-SA3A-31	PREC-SA3A-31	PREC-SA3A-32
		Sampling Date	3/26/2013	3/26/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-28	PREC-SA3A-29	PREC-SA3A-30	PREC-SA3A-31	PREC-SA3A-31	PREC-SA3A-32
		Sampling Date	3/26/2013	3/26/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-33	PREC-SA3A-34	PREC-SA3A-35	PREC-SA3A-36	PREC-SA3A-37	PREC-SA3A-38
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-33	PREC-SA3A-34	PREC-SA3A-35	PREC-SA3A-36	PREC-SA3A-37	PREC-SA3A-38
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	AROCLOR 1221	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	AROCLOR 1232	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	AROCLOR 1242	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	AROCLOR 1248	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	AROCLOR 1254	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	AROCLOR 1260	mg/kg	0.0441 U	0.0427 U	0.0412 U	0.0415 U	0.0433 U	0.041 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-33	PREC-SA3A-34	PREC-SA3A-35	PREC-SA3A-36	PREC-SA3A-37	PREC-SA3A-38
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-33	PREC-SA3A-34	PREC-SA3A-35	PREC-SA3A-36	PREC-SA3A-37	PREC-SA3A-38
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-33	PREC-SA3A-34	PREC-SA3A-35	PREC-SA3A-36	PREC-SA3A-37	PREC-SA3A-38
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-33	PREC-SA3A-34	PREC-SA3A-35	PREC-SA3A-36	PREC-SA3A-37	PREC-SA3A-38
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-39	PREC-SA3A-40	PREC-SA3A-40	PREC-SA3A-41	PREC-SA3A-42	PREC-SA3A-COMP-01
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	3810
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	94.9
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	105
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	0.621
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	0.672
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	20100
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	16.2
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	5.08 U
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	23100
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	175
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	4360
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	15.2
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	541
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	1.06
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	0.508 U
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	508 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	14.5
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	165
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	1.94 J
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	61.3
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	367
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	0.269
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	0.166
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	66.5
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	423 U
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	42.3 U
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	822 U
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	82.2 U

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-39	PREC-SA3A-40	PREC-SA3A-40	PREC-SA3A-41	PREC-SA3A-42	PREC-SA3A-COMP-01
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	1670 U
8082	AROCLOR 1016	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	AROCLOR 1221	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	AROCLOR 1232	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	AROCLOR 1242	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	AROCLOR 1248	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	AROCLOR 1254	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	AROCLOR 1260	mg/kg	0.0415 U	0.0425 U	0.043 U	0.0425 U	0.0398 U	0.0411 R
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	10.4 U
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	10.4 U
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	10.4 U
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	10.4 U
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	414 U
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	10.4 U
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	10.4 U
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	125 U
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	2510 U
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	2510 U
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	10.4 U
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	12.1 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	12.1 U
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	12.1 U
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	24.1 U
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	24.1 UJ
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	24.1 U
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	24.1 U
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	121 UJ
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	121 UJ
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	12.1 U
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	6.03 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-39	PREC-SA3A-40	PREC-SA3A-40	PREC-SA3A-41	PREC-SA3A-42	PREC-SA3A-COMP-01
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 UJ
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	12.1 U
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	24.1 U
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	6.03 UJ
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	12.1 UJ
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	6.03 U
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	12.1 U
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	426 U
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	426 U
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	13600 U
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	426 U
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	426 U
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	5630 U
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	2810 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-39	PREC-SA3A-40	PREC-SA3A-40	PREC-SA3A-41	PREC-SA3A-42	PREC-SA3A-COMP-01
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	13600 U
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	426 U
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	1560
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	426 U
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	3410 U
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	426 U
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	426 U
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	1710 U
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	359 J
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	758
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	1660
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	5630 U
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	2780
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	2940
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	5020
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	2360
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	1920
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	2810 U



Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-39	PREC-SA3A-40	PREC-SA3A-40	PREC-SA3A-41	PREC-SA3A-42	PREC-SA3A-COMP-01
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	853 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	853 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	574
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	3690
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	654
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	647
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	28100 U
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	5560
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	359
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	56.9 U
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	426 U
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	1960
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	1070
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	2810 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-39	PREC-SA3A-40	PREC-SA3A-40	PREC-SA3A-41	PREC-SA3A-42	PREC-SA3A-COMP-01
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/27/2013	3/25/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	426 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	1280 U
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	4320
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	426 U
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	4420
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	853 U
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	2810 U
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	2810 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-02	PREC-SA3A-COMP-03	PREC-SA3A-COMP-04	PREC-SA3A-COMP-05	PREC-SA3A-COMP-06	PREC-SA3A-COMP-07
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	3330	3650	3870	3200	5320	5630
6010B	ARSENIC	mg/kg	61	56.9	73.9	93.4	18.5	20.1
6010B	BARIUM	mg/kg	82.7	72.9	70.7	82.7	76.4	92.6
6010B	BERYLLIUM	mg/kg	0.721 U	0.708 U	0.621 U	0.63 U	0.733	0.988
6010B	CADMIUM	mg/kg	0.81	0.692	0.811	0.726	1.05	1.11
6010B	CALCIUM	mg/kg	96000	17200	13000	24000	20500	14700
6010B	CHROMIUM	mg/kg	13.3	15	13.2	15.7	25.2	14.8
6010B	COBALT	mg/kg	7.21 U	7.08 U	6.21 U	6.3 U	6.63	6.81 U
6010B	IRON	mg/kg	19600	19100	14600	19200	26800	29200
6010B	LEAD	mg/kg	188	167	161	166	266	251
6010B	MAGNESIUM	mg/kg	29500	5970	4570	6850	8290	4430
6010B	NICKEL	mg/kg	15	13.4	13.3	14.3	38.6	18.3
6010B	POTASSIUM	mg/kg	721 U	708 U	621 U	630 U	621	731
6010B	SELENIUM	mg/kg	1.41	1.36	1.44	1.19	1.41	1.62
6010B	SILVER	mg/kg	0.721 U	0.708 U	0.621 U	0.63 U	0.588 U	0.681 U
6010B	SODIUM	mg/kg	721 U	708 U	621 U	630 U	588 U	681 U
6010B	VANADIUM	mg/kg	13.3	13.9	12.6	12.1	19.6	19.6
6010B	ZINC	mg/kg	171	156	165	175	273	335
6020A	ANTIMONY	mg/kg	3.63 J	2.27 J	1.39 J	2.12 J	2.76	4.62
6020A	COPPER	mg/kg	76	66.9	64.8	57.6	85.6	74.9
6020A	MANGANESE	mg/kg	375	339	318	324	355	306
6020A	THALLIUM	mg/kg	0.339	0.3 U	0.278	0.26 U	0.365	0.331
7471B	MERCURY	mg/kg	0.25	0.239	0.252	0.237	0.629	0.333
8081	4,4'-DDD	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	4,4'-DDE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	4,4'-DDT	ug/kg	85.3 J	50.2 U	46.8 U	50.2 J	62.6 J	61.7 J
8081	ALDRIN	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ALPHA-BHC	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ALPHA-CHLORDANE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	BETA-BHC	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	CHLORDANE	ug/kg	555 U	502 U	468 U	436 UJ	468 U	474 U
8081	DELTA-BHC	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	DIELDRIN	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ENDOSULFAN I	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ENDOSULFAN II	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ENDOSULFAN SULFATE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ENDRIN	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ENDRIN ALDEHYDE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	ENDRIN KETONE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	GAMMA-BHC (LINDANE)	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	GAMMA-CHLORDANE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	HEPTACHLOR	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	HEPTACHLOR EPOXIDE	ug/kg	55.5 U	50.2 U	46.8 U	43.6 UJ	46.8 U	47.4 U
8081	KEPONE, PEST	ug/kg	1080 U	974 U	908 U	845 UJ	909 U	919 U
8081	METHOXYCHLOR	ug/kg	108 U	97.4 U	90.8 U	84.5 UJ	90.9 U	91.9 U

**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-02	PREC-SA3A-COMP-03	PREC-SA3A-COMP-04	PREC-SA3A-COMP-05	PREC-SA3A-COMP-06	PREC-SA3A-COMP-07
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	ug/kg	2190 U	1980 U	1840 U	1720 UJ	1850 U	1870 U
8082	AROCLOR 1016	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0423 U	0.0455 U	0.046 U
8082	AROCLOR 1221	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0423 U	0.0455 U	0.046 U
8082	AROCLOR 1232	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0423 U	0.0455 U	0.046 U
8082	AROCLOR 1242	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0423 U	0.0455 U	0.046 U
8082	AROCLOR 1248	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0423 U	0.0455 U	0.046 U
8082	AROCLOR 1254	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0656 J	0.0455 U	0.046 U
8082	AROCLOR 1260	mg/kg	0.0539 U	0.0487 U	0.0454 U	0.0423 U	0.0455 U	0.046 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0.0656	0 U	0 U
8151A	2,4,5-T	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8151A	2,4,5-TP (SILVEX)	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8151A	2,4-D	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8151A	2,4-DB	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8151A	DALAPON	ug/kg	530 U	493 U	446 U	428 U	448 U	459 U
8151A	DICAMBA	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8151A	DICHLOROPROP	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8151A	DINOSEB	ug/kg	161 U	149 U	135 U	130 U	136 U	139 U
8151A	MCPA	ug/kg	3210 U	2980 U	2700 U	2600 U	2720 U	2780 U
8151A	MECOPROP	ug/kg	3210 U	2980 U	2700 U	2600 U	2720 U	2780 U
8151A	PENTACHLOROPHENOL, HERB	ug/kg	13.3 U	12.4 U	11.2 U	10.8 U	11.3 U	11.5 U
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,1,1-TRICHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,1,2-TRICHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,1-DICHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,1-DICHLOROETHENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,2,3-TRICHLOROPROPANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,2-DICHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8260	1,2-DICHLOROPROPANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	2-BUTANONE (MEK)	ug/kg	30.3 UJ	29.7 U	26.8 U	25.9 U	25.5 U	26.4 U
8260	2-HEXANONE	ug/kg	30.3 UJ	29.7 U	26.8 U	25.9 U	25.5 U	26.4 U
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	30.3 UJ	29.7 U	26.8 U	25.9 U	25.5 U	26.4 U
8260	ACETONE	ug/kg	30.3 UJ	29.7 U	26.8 U	25.9 U	25.5 U	26.4 U
8260	ACROLEIN	ug/kg	152 UJ	149 U	134 U	129 U	127 U	132 U
8260	ACRYLONITRILE	ug/kg	152 UJ	149 U	134 U	129 U	127 U	132 U
8260	ALLYL CHLORIDE	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8260	BENZENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-02	PREC-SA3A-COMP-03	PREC-SA3A-COMP-04	PREC-SA3A-COMP-05	PREC-SA3A-COMP-06	PREC-SA3A-COMP-07
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BROMODICHLOROMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	BROMOFORM	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CARBON DISULFIDE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CARBON TETRACHLORIDE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CHLOROBENZENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CHLORODIBROMOMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CHLOROETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CHLOROFORM	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CHLOROMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CHLOROPRENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	DIBROMOMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	DICHLORODIFLUOROMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	ETHYL METHACRYLATE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	ETHYLBENZENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	IODOMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	M,P-XYLENE	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8260	METHACRYLONITRILE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	METHYL METHACRYLATE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	METHYLENE CHLORIDE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	O-XYLENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	PROPIONITRILE	ug/kg	30.3 UJ	29.7 U	26.8 U	25.9 U	25.5 U	26.4 U
8260	STYRENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TETRACHLOROETHENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TOLUENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TRICHLOROETHENE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	TRICHLOROFLUOROMETHANE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	VINYL ACETATE	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8260	VINYL CHLORIDE	ug/kg	7.58 UJ	7.43 U	6.71 U	6.47 U	6.37 U	6.59 U
8260	XYLENE (TOTAL)	ug/kg	15.2 UJ	14.9 U	13.4 U	12.9 U	12.7 U	13.2 U
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	1,3,5-TRINITROBENZENE	ug/kg	25700 U	9500 U	5400 U	13900 U	10900 U	8850 U
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	1,3-DINITROBENZENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	1,4-NAPHTHOQUINONE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	1,4-PHENYLENEDIAMINE	ug/kg	10600 U	3920 U	2230 U	5730 U	4510 U	3650 U
8270	1-NAPHTHYLAMINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-02	PREC-SA3A-COMP-03	PREC-SA3A-COMP-04	PREC-SA3A-COMP-05	PREC-SA3A-COMP-06	PREC-SA3A-COMP-07
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	25700 U	9500 U	5400 U	13900 U	10900 U	8850 U
8270	2,4,5-TRICHLOROPHENOL	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	2,4,6-TRICHLOROPHENOL	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	2,4-DICHLOROPHENOL	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	2,4-DIMETHYLPHENOL	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	2,4-DINITROPHENOL	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	2,4-DINITROTOLUENE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	2,6-DICHLOROPHENOL	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	2,6-DINITROTOLUENE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	2-ACETYLAMINOFLUORENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	2-CHLORONAPHTHALENE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	2-CHLOROPHENOL	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	1540	975	767	1100	3110	2110
8270	2-METHYLPHENOL	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	2-NAPHTHYLAMINE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	2-NITROANILINE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	2-NITROPHENOL	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	2-PICOLINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	3&4-METHYLPHENOL	ug/kg	6420 U	2380 U	1350 U	3470 U	2730 U	2210 U
8270	3,3'-DICHLOROBENZIDINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	3-METHYLCHOLANTHRENE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	3-NITROANILINE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	4-AMINOBIPHENYL	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	4-CHLOROANILINE	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	4-NITROANILINE	ug/kg	3210 U	1190 U	674 U	1740 U	1370 U	1110 U
8270	4-NITROPHENOL, SVOC	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	5-NITRO-O-TOLUIDINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	ACENAPHTHENE	ug/kg	657 J	136 J	98.2 J	147 J	153 J	36.9 UJ
8270	ACENAPHTHYLENE	ug/kg	990	414	411	1190	886	676
8270	ACETOPHENONE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	ANILINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	ANTHRACENE	ug/kg	2730	666	595	1140	1070	592
8270	BENZIDINE	ug/kg	10600 U	3920 U	2230 U	5730 U	4510 U	3650 U
8270	BENZO(A)ANTHRACENE	ug/kg	5900	1780	1520	2960	2630	1270
8270	BENZO[A]PYRENE	ug/kg	5470	1960	1690	3110	2690	1750
8270	BENZO[B]FLUORANTHENE	ug/kg	8710	3300	3120	5010	4890	2930
8270	BENZO[G,H,I]PERYLENE	ug/kg	3630	1610	1350	2720	2200	1720
8270	BENZO[K]FLUORANTHENE	ug/kg	2170	1220	1100	1900	1370	958
8270	BENZYL ALCOHOL	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U



**Table G-2**  
**SA3-A Pre-Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-02	PREC-SA3A-COMP-03	PREC-SA3A-COMP-04	PREC-SA3A-COMP-05	PREC-SA3A-COMP-06	PREC-SA3A-COMP-07
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	BUTYL BENZYL PHTHALATE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	CARBAZOLE	ug/kg	1010	308	228	434 U	341 U	277 U
8270	CHLOROBENZILATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	CHRYSENE	ug/kg	6130	2130	1860	3510	2890	1730
8270	DIALLATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	1050	387	403	668	584	395
8270	DIBENZOFURAN	ug/kg	802 U	363	238	434 U	809	535
8270	DIETHYL PHTHALATE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	DIMETHOATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	DIMETHYL PHTHALATE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	DI-N-BUTYL PHTHALATE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	DI-N-OCTYL PHTHALATE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	DIPHENYLAMINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	DISULFOTON	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	ETHYL METHANESULFONATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	FAMPHUR	ug/kg	53000 U	19600 U	11100 U	28600 U	22500 U	18300 U
8270	FLUORANTHENE	ug/kg	11100	3490	2840	6040	4040	2040
8270	FLUORENE	ug/kg	677	136	117	185	180	94
8270	HEXACHLOROBENZENE, SVOC	ug/kg	107 U	39.6 U	22.5 U	57.9 U	45.6 U	36.9 U
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	HEXACHLOROETHANE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	HEXACHLOROPROPENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	3140	1340	1210	2270	1830	1270
8270	ISODRIN	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	ISOPHORONE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	ISOSAFROLE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	METHAPYRILENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	METHYL METHANESULFONATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	METHYL PARATHION	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	NAPHTHALENE, SVOC	ug/kg	1160	676	475	747	1840	1260
8270	NITROBENZENE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	N-NITROSODIETHYLAMINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	N-NITROSODIMETHYLAMINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	N-NITROSODIPHENYLAMINE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	N-NITROSOMORPHOLINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	N-NITROSOPIPERIDINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-02	PREC-SA3A-COMP-03	PREC-SA3A-COMP-04	PREC-SA3A-COMP-05	PREC-SA3A-COMP-06	PREC-SA3A-COMP-07
		Sampling Date	3/25/2013	3/25/2013	3/25/2013	3/25/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSOPYRROLIDINE	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	O-TOLUIDINE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	PARATHION	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	PENTACHLOROBENZENE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	PENTACHLORONITROBENZENE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	PENTACHLOROPHENOL, SVOC	ug/kg	2410 U	891 U	506 U	1300 U	1020 U	830 U
8270	PHENACETIN	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	PHENANTHRENE	ug/kg	7760	2030	1490	2250	2670	1570
8270	PHENOL	ug/kg	802 U	297 U	169 U	434 U	341 U	277 U
8270	PHORATE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	PRONAMIDE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	PYRENE	ug/kg	8810	2710	2300	4750	3290	1870
8270	PYRIDINE	ug/kg	1600 U	594 U	337 U	868 U	683 U	553 U
8270	SAFROLE	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	SULFOTEPP	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U
8270	THIONAZIN	ug/kg	5300 U	1960 U	1110 U	2860 U	2250 U	1830 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-08	PREC-SA3A-COMP-09	PREC-SA3A-COMP-10	PREC-SA3A-COMP-11
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
6010B	ALUMINUM	mg/kg	7520	4150	3300	3890
6010B	ARSENIC	mg/kg	28.8	72.1	54.5	49.9
6010B	BARIUM	mg/kg	122	106	73.7	71.3
6010B	BERYLLIUM	mg/kg	0.869	0.765	0.595	0.698
6010B	CADMIUM	mg/kg	1.06	0.945	0.86	1.38
6010B	CALCIUM	mg/kg	11900	6940	34900	8090
6010B	CHROMIUM	mg/kg	14	15.9	10.6	14.6
6010B	COBALT	mg/kg	6.69 U	6.58 U	5.94 U	5.81 U
6010B	IRON	mg/kg	26300	26800	20200	23800
6010B	LEAD	mg/kg	217	297	229	189
6010B	MAGNESIUM	mg/kg	2900	2260	5210	2630
6010B	NICKEL	mg/kg	17.6	17.9	15.6	20.6
6010B	POTASSIUM	mg/kg	861	679	594	652
6010B	SELENIUM	mg/kg	1.55	1.62	1.62	1.45
6010B	SILVER	mg/kg	0.669 U	0.658 U	0.594 U	0.581 U
6010B	SODIUM	mg/kg	669 U	658 U	594 U	581 U
6010B	VANADIUM	mg/kg	20.2	17.2	13.3	15.6
6010B	ZINC	mg/kg	329	330	210	248
6020A	ANTIMONY	mg/kg	2.13	2.91	2.52	2.13
6020A	COPPER	mg/kg	74.6	95	78	78.7
6020A	MANGANESE	mg/kg	274	287	291	263
6020A	THALLIUM	mg/kg	0.316	0.433	0.345	0.281
7471B	MERCURY	mg/kg	0.242	0.262	0.259	0.208
8081	4,4'-DDD	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	4,4'-DDE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	4,4'-DDT	ug/kg	61.4 J	83.3	64.1 J	43.1 U
8081	ALDRIN	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ALPHA-BHC	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ALPHA-CHLORDANE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	BETA-BHC	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	CHLORDANE	ug/kg	467 U	472 U	468 UJ	431 U
8081	DELTA-BHC	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	DIELDRIN	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ENDOSULFAN I	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ENDOSULFAN II	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ENDOSULFAN SULFATE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ENDRIN	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ENDRIN ALDEHYDE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	ENDRIN KETONE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	GAMMA-BHC (LINDANE)	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	GAMMA-CHLORDANE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	HEPTACHLOR	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	HEPTACHLOR EPOXIDE	ug/kg	46.7 U	47.2 U	46.8 UJ	43.1 U
8081	KEPONE, PEST	ug/kg	906 U	915 U	909 UJ	836 U
8081	METHOXYCHLOR	ug/kg	90.6 U	91.5 U	90.9 UJ	83.6 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-08	PREC-SA3A-COMP-09	PREC-SA3A-COMP-10	PREC-SA3A-COMP-11
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8081	TOXAPHENE	ug/kg	1840 U	1860 U	1840 UJ	1700 U
8082	AROCLOR 1016	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	AROCLOR 1221	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	AROCLOR 1232	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	AROCLOR 1242	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	AROCLOR 1248	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	AROCLOR 1254	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	AROCLOR 1260	mg/kg	0.0453 U	0.0458 U	0.0454 U	0.0418 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8151A	2,4,5-TP (SILVEX)	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8151A	2,4-D	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8151A	2,4-DB	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8151A	DALAPON	ug/kg	447 U	454 U	452 U	415 U
8151A	DICAMBA	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8151A	DICHLOROPROP	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8151A	DINOSEB	ug/kg	136 U	138 U	137 U	126 U
8151A	MCPA	ug/kg	2710 U	2750 U	2740 U	2520 U
8151A	MECOPROP	ug/kg	2710 U	2750 U	2740 U	2520 U
8151A	PENTACHLOROPHENOL, HERB	ug/kg	11.3 U	11.4 U	11.4 U	10.4 U
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,1,1-TRICHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,1,2-TRICHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,1-DICHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,1-DICHLOROETHENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,2,3-TRICHLOROPROPANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,2-DICHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8260	1,2-DICHLOROPROPANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	2-BUTANONE (MEK)	ug/kg	27.2 U	26.9 UJ	27.5 U	25.5 UJ
8260	2-HEXANONE	ug/kg	27.2 U	26.9 UJ	27.5 U	25.5 UJ
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	27.2 U	26.9 UJ	27.5 U	25.5 UJ
8260	ACETONE	ug/kg	27.2 U	26.9 UJ	27.5 U	25.5 UJ
8260	ACROLEIN	ug/kg	136 U	135 UJ	137 U	128 UJ
8260	ACRYLONITRILE	ug/kg	136 U	135 UJ	137 U	128 UJ
8260	ALLYL CHLORIDE	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8260	BENZENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-08	PREC-SA3A-COMP-09	PREC-SA3A-COMP-10	PREC-SA3A-COMP-11
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8260	BROMODICHLOROMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	BROMOFORM	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CARBON DISULFIDE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CARBON TETRACHLORIDE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CHLOROBENZENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CHLORODIBROMOMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CHLOROETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CHLOROFORM	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CHLOROMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CHLOROPRENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	DIBROMOMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	DICHLORODIFLUOROMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	ETHYL METHACRYLATE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	ETHYLBENZENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	IODOMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	M,P-XYLENE	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8260	METHACRYLONITRILE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	METHYL METHACRYLATE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	METHYLENE CHLORIDE	ug/kg	6.8 U	7.04 J	6.87 U	6.38 UJ
8260	O-XYLENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	PROPIONITRILE	ug/kg	27.2 U	26.9 UJ	27.5 U	25.5 UJ
8260	STYRENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TETRACHLOROETHENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TOLUENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TRICHLOROETHENE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	TRICHLOROFLUOROMETHANE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	VINYL ACETATE	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8260	VINYL CHLORIDE	ug/kg	6.8 U	6.74 UJ	6.87 U	6.38 UJ
8260	XYLENE (TOTAL)	ug/kg	13.6 U	13.5 UJ	13.7 U	12.8 UJ
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	549 U	687 U	554 U	505 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	274 U	344 U	277 U	253 U
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	274 U	344 U	277 U	253 U
8270	1,3,5-TRINITROBENZENE	ug/kg	8780 U	11000 U	8870 U	8080 U
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	274 U	344 U	277 U	253 U
8270	1,3-DINITROBENZENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	274 U	344 U	277 U	253 U
8270	1,4-NAPHTHOQUINONE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	1,4-PHENYLENEDIAMINE	ug/kg	3620 U	4540 U	3660 U	3330 U
8270	1-NAPHTHYLAMINE	ug/kg	1810 U	2270 U	1830 U	1670 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-08	PREC-SA3A-COMP-09	PREC-SA3A-COMP-10	PREC-SA3A-COMP-11
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	8780 U	11000 U	8870 U	8080 U
8270	2,4,5-TRICHLOROPHENOL	ug/kg	823 U	1030 U	832 U	758 U
8270	2,4,6-TRICHLOROPHENOL	ug/kg	823 U	1030 UJ	832 U	758 U
8270	2,4-DICHLOROPHENOL	ug/kg	823 U	1030 U	832 U	758 U
8270	2,4-DIMETHYLPHENOL	ug/kg	823 U	1030 U	832 U	758 U
8270	2,4-DINITROPHENOL	ug/kg	1810 U	2270 UJ	1830 U	1670 U
8270	2,4-DINITROTOLUENE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	2,6-DICHLOROPHENOL	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	2,6-DINITROTOLUENE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	2-ACETYLAMINOFLUORENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	2-CHLORONAPHTHALENE	ug/kg	274 U	344 U	277 U	253 U
8270	2-CHLOROPHENOL	ug/kg	274 U	344 U	277 U	253 U
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	2220	3580	3230	3080
8270	2-METHYLPHENOL	ug/kg	1100 U	1370 UJ	1110 U	1010 U
8270	2-NAPHTHYLAMINE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	2-NITROANILINE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	2-NITROPHENOL	ug/kg	274 U	344 U	277 U	253 U
8270	2-PICOLINE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	3&4-METHYLPHENOL	ug/kg	2200 U	2750 U	2220 U	2020 U
8270	3,3'-DICHLOROBENZIDINE	ug/kg	549 U	687 UJ	554 U	505 U
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	3-METHYLCHOLANTHRENE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	3-NITROANILINE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	823 U	1030 UJ	832 U	758 U
8270	4-AMINOBIPHENYL	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	274 U	344 U	277 U	253 U
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	823 U	1030 U	832 U	758 U
8270	4-CHLOROANILINE	ug/kg	823 U	1030 U	832 U	758 U
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	274 U	344 U	277 U	253 U
8270	4-NITROANILINE	ug/kg	1100 U	1370 U	1110 U	1010 U
8270	4-NITROPHENOL, SVOC	ug/kg	1810 U	2270 UJ	1830 U	1670 U
8270	5-NITRO-O-TOLUIDINE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	ACENAPHTHENE	ug/kg	83.6 J	166 J	100 J	33.7 UJ
8270	ACENAPHTHYLENE	ug/kg	333	561 J	541	561
8270	ACETOPHENONE	ug/kg	549 U	687 U	554 U	505 U
8270	ANILINE	ug/kg	1810 U	2270 UJ	1830 U	1670 U
8270	ANTHRACENE	ug/kg	451	779	632	620
8270	BENZIDINE	ug/kg	3620 U	4540 U	3660 U	3330 U
8270	BENZO(A)ANTHRACENE	ug/kg	1610	2250	1480	1540
8270	BENZO[A]PYRENE	ug/kg	1500	2410 J	1520	1500
8270	BENZO[B]FLUORANTHENE	ug/kg	2720	4580 J	3130	2900
8270	BENZO[G,H,I]PERYLENE	ug/kg	1140	2090 J	1140	1170
8270	BENZO[K]FLUORANTHENE	ug/kg	923	1720 J	1090	906
8270	BENZYL ALCOHOL	ug/kg	1810 U	2270 U	1830 U	1670 U



Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-08	PREC-SA3A-COMP-09	PREC-SA3A-COMP-10	PREC-SA3A-COMP-11
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	549 U	687 U	554 U	505 U
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	549 U	687 U	554 U	505 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	549 U	687 U	554 U	505 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	274 U	344 U	277 U	253 U
8270	BUTYL BENZYL PHTHALATE	ug/kg	274 U	344 U	277 U	253 U
8270	CARBAZOLE	ug/kg	274 U	344 U	277 U	253 U
8270	CHLOROBENZILATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	CHRYSENE	ug/kg	2170	3190	1990	2010
8270	DIALLATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	319	547	380	328
8270	DIBENZOFURAN	ug/kg	537	930	819	726
8270	DIETHYL PHTHALATE	ug/kg	274 U	344 U	277 U	253 U
8270	DIMETHOATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	DIMETHYL PHTHALATE	ug/kg	274 U	344 U	277 U	253 U
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	DI-N-BUTYL PHTHALATE	ug/kg	274 U	344 U	277 U	253 U
8270	DI-N-OCTYL PHTHALATE	ug/kg	274 U	344 U	277 U	253 U
8270	DIPHENYLAMINE	ug/kg	549 U	687 U	554 U	505 U
8270	DISULFOTON	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	ETHYL METHANESULFONATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	FAMPHUR	ug/kg	18100 U	22700 U	18300 U	16700 U
8270	FLUORANTHENE	ug/kg	3250	3780	2320	2160
8270	FLUORENE	ug/kg	111	205	132	108
8270	HEXACHLOROBENZENE, SVOC	ug/kg	36.6 U	45.8 U	37 U	33.7 U
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	274 U	344 U	277 U	253 U
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	1810 U	2270 UJ	1830 U	1670 U
8270	HEXACHLOROETHANE	ug/kg	274 U	344 U	277 U	253 U
8270	HEXACHLOROPROPENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	935	1780	931	973
8270	ISODRIN	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	ISOPHORONE	ug/kg	274 U	344 U	277 U	253 U
8270	ISOSAFROLE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	METHAPYRILENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	METHYL METHANESULFONATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	METHYL PARATHION	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	NAPHTHALENE, SVOC	ug/kg	1200	2150	1770	1880
8270	NITROBENZENE	ug/kg	549 U	687 U	554 U	505 U
8270	N-NITROSODIETHYLAMINE	ug/kg	549 U	687 U	554 U	505 U
8270	N-NITROSODIMETHYLAMINE	ug/kg	549 U	687 U	554 U	505 U
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	549 U	687 U	554 U	505 U
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	274 U	344 U	277 U	253 U
8270	N-NITROSODIPHENYLAMINE	ug/kg	274 U	344 U	277 U	253 U
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	549 U	687 U	554 U	505 U
8270	N-NITROSOMORPHOLINE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	N-NITROSOPIPERIDINE	ug/kg	1810 U	2270 U	1830 U	1670 U

Table G-2  
SA3-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Pre construction	Pre construction	Pre construction	Pre construction
		Location ID	PREC-SA3A-COMP-08	PREC-SA3A-COMP-09	PREC-SA3A-COMP-10	PREC-SA3A-COMP-11
		Sampling Date	3/27/2013	3/27/2013	3/27/2013	3/27/2013
		Depth Interval (inches bss	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	N-NITROSOPYRROLIDINE	ug/kg	274 U	344 U	277 U	253 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	O-TOLUIDINE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	PARATHION	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	PENTACHLOROBENZENE	ug/kg	549 U	687 U	554 U	505 U
8270	PENTACHLORONITROBENZENE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	PENTACHLOROPHENOL, SVOC	ug/kg	823 U	1030 UJ	832 U	758 U
8270	PHENACETIN	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	PHENANTHRENE	ug/kg	1730	3250 J	2250	1920
8270	PHENOL	ug/kg	274 U	344 U	277 U	253 U
8270	PHORATE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	PRONAMIDE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	PYRENE	ug/kg	2650	3420	2090	1970
8270	PYRIDINE	ug/kg	549 U	687 U	554 U	505 U
8270	SAFROLE	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	SULFOTEPP	ug/kg	1810 U	2270 U	1830 U	1670 U
8270	THIONAZIN	ug/kg	1810 U	2270 U	1830 U	1670 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-3  
SA3-A Verification, Confirmation and Node Sediment Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Node	Node
		Location ID	CSD-SA3A-1	CSD-SA3A-2	CSD-SA3A-3	CSD-SA3A-4	CSD-SA3A-5	CSD-SA3A-6	CSD-SA3A-7	CSD-SA3A-8	NSD-SA3A-2-10	NSD-SA3A-2-11
		Sample Date	6/4/2013	6/5/2013	6/3/2013	6/4/2013	6/5/2013	6/6/2013	6/11/2013	6/11/2013	6/5/2013	6/5/2013
		Depth Interval	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical	Chemical Name	Unit										
8082	AROCLOR 1016	mg/kg	0.068 U	0.046 U	0.055 U	0.043 U	0.042 U	0.042 U	0.043 U	0.042 U	0.047 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.068 U	0.046 U	0.055 U	0.043 U	0.042 U	0.042 U	0.043 U	0.042 U	0.047 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.068 U	0.046 U	0.055 U	0.043 U	0.042 U	0.042 U	0.043 U	0.042 U	0.047 U	0.045 U
8082	AROCLOR 1242	mg/kg	0.068 U	0.046 U	0.055 U	0.043 U	0.042 U	0.042 U	0.043 U	0.042 U	0.047 U	0.045 U
8082	AROCLOR 1248	mg/kg	2.1	0.046 U	1.5	0.043 U	0.042 U	0.042 U	0.1	0.12	0.047 U	0.045 U
8082	AROCLOR 1254	mg/kg	0.97	0.046 U	0.45	0.043 U	0.042 U	0.042 U	0.043 U	0.042 U	0.047 U	0.045 U
8082	AROCLOR 1260	mg/kg	0.068 U	0.046 U	0.055 U	0.043 U	0.042 U	0.042 U	0.043 U	0.042 U	0.047 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	3.07	0 U	1.95	0 U	0 U	0 U	0.1	0.12	0 U	0 U

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Node	Node	Node	Node	Node	Node	Node	Node	Node	Node
		Location ID	NSD-SA3A-2-12	NSD-SA3A-2-7	NSD-SA3A-2-8	NSD-SA3A-2-9	NSD-SA3A-3-13	NSD-SA3A-3-14	NSD-SA3A-3-15	NSD-SA3A-3-16	NSD-SA3A-3-17	NSD-SA3A-3-18
		Sample Date	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/3/2013	6/3/2013	6/3/2013	6/3/2013	6/3/2013	6/3/2013
		Depth Interval	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit										
8082	AROCLOR 1016	mg/kg	0.04 U	0.045 U	0.051 U	0.05 U	0.048 U	0.06 U	0.059 U	0.043 U	0.056 U	0.059 U
8082	AROCLOR 1221	mg/kg	0.04 U	0.045 U	0.051 U	0.05 U	0.048 U	0.06 U	0.059 U	0.043 U	0.056 U	0.059 U
8082	AROCLOR 1232	mg/kg	0.04 U	0.045 U	0.051 U	0.05 U	0.048 U	0.06 U	0.059 U	0.043 U	0.056 U	0.059 U
8082	AROCLOR 1242	mg/kg	0.04 U	0.045 U	0.051 U	0.05 U	0.048 U	0.06 U	0.059 U	0.043 U	0.056 U	0.059 U
8082	AROCLOR 1248	mg/kg	0.04 U	0.39	0.051 U	0.081	2.2	0.16	3	0.79	0.72	0.96
8082	AROCLOR 1254	mg/kg	0.04 U	0.14	0.051 U	0.05 U	0.52	0.13	0.89	0.18	0.27	0.35
8082	AROCLOR 1260	mg/kg	0.04 U	0.045 U	0.051 U	0.05 U	0.048 U	0.06 U	0.059 U	0.043 U	0.056 U	0.059 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.53	0 U	0.081	2.72	0.29	3.89	0.97	0.99	1.31

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Node	Node	Node	Node	Node	Node	Verification	Verification
		Location ID	NSD-SA3A-4-19	NSD-SA3A-4-20	NSD-SA3A-4-21	NSD-SA3A-4-22	NSD-SA3A-4-23	NSD-SA3A-4-24	VER-SA3A-2	VER-SA3A-5
		Sample Date	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/5/2013
		Depth Interval	NA	NA	NA	NA	NA	NA	NA	NA
Analytical	Chemical Name	Unit								
8082	AROCLOR 1016	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.067 U	0.051 U
8082	AROCLOR 1221	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.067 U	0.051 U
8082	AROCLOR 1232	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.067 U	0.051 U
8082	AROCLOR 1242	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.067 U	0.051 U
8082	AROCLOR 1248	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.14	2.6
8082	AROCLOR 1254	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.1	0.6
8082	AROCLOR 1260	mg/kg	0.052 U	0.04 U	0.041 U	0.04 U	0.045 U	0.042 U	0.067 U	0.051 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0.24	3.2

Notes:  
bss = Below sediment surface  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = not applicable  
PCB = Polychlorinated biphenyl  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-01	PSTC-SA3AE-02	PSTC-SA3AE-03	PSTC-SA3AE-04	PSTC-SA3AE-05	PSTC-SA3AE-06	PSTC-SA3AE-07
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-01	PSTC-SA3AE-02	PSTC-SA3AE-03	PSTC-SA3AE-04	PSTC-SA3AE-05	PSTC-SA3AE-06	PSTC-SA3AE-07
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	AROCLOR 1221	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	AROCLOR 1232	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	AROCLOR 1242	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	AROCLOR 1248	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	AROCLOR 1254	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	AROCLOR 1260	mg/kg	0.0403 U	0.0358 U	0.0403 U	0.0373 U	0.038 U	0.0372 U	0.0399 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-01	PSTC-SA3AE-02	PSTC-SA3AE-03	PSTC-SA3AE-04	PSTC-SA3AE-05	PSTC-SA3AE-06	PSTC-SA3AE-07
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-01	PSTC-SA3AE-02	PSTC-SA3AE-03	PSTC-SA3AE-04	PSTC-SA3AE-05	PSTC-SA3AE-06	PSTC-SA3AE-07
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-01	PSTC-SA3AE-02	PSTC-SA3AE-03	PSTC-SA3AE-04	PSTC-SA3AE-05	PSTC-SA3AE-06	PSTC-SA3AE-07
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-01	PSTC-SA3AE-02	PSTC-SA3AE-03	PSTC-SA3AE-04	PSTC-SA3AE-05	PSTC-SA3AE-06	PSTC-SA3AE-07
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O- TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-08	PSTC-SA3AE-09	PSTC-SA3AE-10	PSTC-SA3AE-10	PSTC-SA3AE-11	PSTC-SA3AE-12	PSTC-SA3AE-13
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-08	PSTC-SA3AE-09	PSTC-SA3AE-10	PSTC-SA3AE-10	PSTC-SA3AE-11	PSTC-SA3AE-12	PSTC-SA3AE-13
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0435 U	0.0389 U	0.0383 U	0.0376 U	0.0378 U	0.0376 U	0.0381 U
8082	AROCLOR 1221	mg/kg	0.0435 U	0.0389 U	0.0383 U	0.0376 U	0.0378 U	0.0376 U	0.0381 U
8082	AROCLOR 1232	mg/kg	0.0435 U	0.0389 U	0.0383 U	0.0376 U	0.0378 U	0.0376 U	0.0381 U
8082	AROCLOR 1242	mg/kg	0.0435 U	0.0389 U	0.0383 U	0.0376 U	0.0378 U	0.0376 U	0.0381 U
8082	AROCLOR 1248	mg/kg	0.0746	0.0389 U	0.0656 J	0.0387 J	0.096	0.0588	0.0689
8082	AROCLOR 1254	mg/kg	0.0435 U	0.0389 U	0.0383 U	0.0376 U	0.0378 U	0.0376 U	0.0381 U
8082	AROCLOR 1260	mg/kg	0.0435 U	0.0389 U	0.0383 U	0.0376 U	0.0378 U	0.0376 U	0.0381 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.0746	0 U	0.0656	0.0387	0.096	0.0588	0.0689
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-08	PSTC-SA3AE-09	PSTC-SA3AE-10	PSTC-SA3AE-10	PSTC-SA3AE-11	PSTC-SA3AE-12	PSTC-SA3AE-13
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-08	PSTC-SA3AE-09	PSTC-SA3AE-10	PSTC-SA3AE-10	PSTC-SA3AE-11	PSTC-SA3AE-12	PSTC-SA3AE-13
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-08	PSTC-SA3AE-09	PSTC-SA3AE-10	PSTC-SA3AE-10	PSTC-SA3AE-11	PSTC-SA3AE-12	PSTC-SA3AE-13
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-08	PSTC-SA3AE-09	PSTC-SA3AE-10	PSTC-SA3AE-10	PSTC-SA3AE-11	PSTC-SA3AE-12	PSTC-SA3AE-13
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-14	PSTC-SA3AE-15	PSTC-SA3AE-16	PSTC-SA3AE-16	PSTC-SA3AE-COMP-01	PSTC-SA3AE-COMP-02
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	3400	4200
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	40.4	29.2
6010B	BARIUM	mg/kg	NA	NA	NA	NA	63.5	54.9
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	0.715	0.611
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	0.671	0.394
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	29800	21100
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	13.3	14.3
6010B	COBALT	mg/kg	NA	NA	NA	NA	4.88 U	4.99 U
6010B	IRON	mg/kg	NA	NA	NA	NA	24700	21800
6010B	LEAD	mg/kg	NA	NA	NA	NA	176	129
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	11800	5920
6010B	NICKEL	mg/kg	NA	NA	NA	NA	15.8	14
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	550	499 U
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	1.09	0.673
6010B	SILVER	mg/kg	NA	NA	NA	NA	0.488 U	0.499 U
6010B	SODIUM	mg/kg	NA	NA	NA	NA	488 U	499 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	12.8	13.5
6010B	ZINC	mg/kg	NA	NA	NA	NA	183	123
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	2.85 J	1.67 J
6020A	COPPER	mg/kg	NA	NA	NA	NA	84.1	42
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	404 J	219 J
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	0.421 U	0.379 U
7471B	MERCURY	mg/kg	NA	NA	NA	NA	0.18	0.134
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ALDRIN	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	1810 U	1940 UJ
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ENDRIN	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	181 U	194 UJ
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	181 U	194 UJ

**Table G-4**  
**SA3-A Post Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-14	PSTC-SA3AE-15	PSTC-SA3AE-16	PSTC-SA3AE-16	PSTC-SA3AE-COMP-01	PSTC-SA3AE-COMP-02
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	351 U	376 UJ
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	7120 U	7630 UJ
8082	AROCLOR 1016	mg/kg	0.038 U	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	AROCLOR 1221	mg/kg	0.038 U	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	AROCLOR 1232	mg/kg	0.038 U	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	AROCLOR 1242	mg/kg	0.038 U	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	AROCLOR 1248	mg/kg	0.235	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	AROCLOR 1254	mg/kg	0.038 U	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	AROCLOR 1260	mg/kg	0.038 U	0.0434 U	0.0361 U	0.0362 U	0.0351 U	0.0376 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.235	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8151A	2,4-D	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8151A	DALAPON	ug/kg	NA	NA	NA	NA	352 U	375 U
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	107 U	114 U
8151A	MCPA	ug/kg	NA	NA	NA	NA	2130 U	2270 U
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	2130 U	2270 U
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	8.85 U	9.44 U
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	10.7 U	11.2 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	10.7 U	11.2 U
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	10.7 U	11.2 U
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	21.3 U	22.4 U
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	21.3 U	22.4 U
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	21.3 U	22.4 U
8260	ACETONE	ug/kg	NA	NA	NA	NA	21.3 U	22.4 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-14	PSTC-SA3AE-15	PSTC-SA3AE-16	PSTC-SA3AE-16	PSTC-SA3AE-COMP-01	PSTC-SA3AE-COMP-02
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	107 U	112 U
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	107 U	112 U
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	10.7 U	11.2 U
8260	BENZENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	6.81	5.6 U
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	21.3 U	22.4 U
8260	STYRENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TOLUENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	10.7 U	11.2 U
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	5.33 U	5.6 U
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	10.7 U	11.2 U
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	8640 U	18200 U



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-14	PSTC-SA3AE-15	PSTC-SA3AE-16	PSTC-SA3AE-16	PSTC-SA3AE-COMP-01	PSTC-SA3AE-COMP-02
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	3560 U	7490 U
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	8640 U	18200 U
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	2110	1610
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	2160 U	4540 U
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	1080 U	2270 U
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	93.5	847
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	1080	372
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	ANILINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-14	PSTC-SA3AE-15	PSTC-SA3AE-16	PSTC-SA3AE-16	PSTC-SA3AE-COMP-01	PSTC-SA3AE-COMP-02
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	743	2430
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	3560 U	7490 U
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	2270	4540
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	2350	3250
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	4500	4960
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	1790	2070
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	1570	2000
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	378 U	795 U
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	378 U	795 U
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	351	1040
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	2940	4750
8270	DIALATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	439	649
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	689	929
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	378 U	795 U
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	378 U	795 U
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	378 U	795 U
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	378 U	795 U
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	17800 U	37500 U
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	3710	9560
8270	FLUORENE	ug/kg	NA	NA	NA	NA	112	834
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	36 U	75.7 U
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	1480	1690
8270	ISODRIN	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	1780 U	3750 U

<div> <div>Table G-4</div> <div>SA3-A Post Construction Soil Sampling Results</div> <div>Portage Creek Area Site</div> <div>Kalamazoo, Kalamazoo County, Michigan</div> </div>								
		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-14	PSTC-SA3AE-15	PSTC-SA3AE-16	PSTC-SA3AE-16	PSTC-SA3AE-COMP-01	PSTC-SA3AE-COMP-02
		Sampling Date	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	1570	1460
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	N-NITroso-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	PARATHION	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	810 U	1700 U
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	2350	9700
8270	PHENOL	ug/kg	NA	NA	NA	NA	270 U	568 U
8270	PHORATE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	PYRENE	ug/kg	NA	NA	NA	NA	3510	8270
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	540 U	1140 U
8270	SAFROLE	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	1780 U	3750 U
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	1780 U	3750 U

Notes:

\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06

µg/kg = Microgram per kilogram

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-COMP-03	PSTC-SA3AE-COMP-04	PSTC-SA3AW-01	PSTC-SA3AW-02	PSTC-SA3AW-03	PSTC-SA3AW-04
		Sampling Date	7/11/2013	7/11/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	3570	4580	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	78.9	39.2	NA	NA	NA	NA
6010B	BARIUM	mg/kg	53.4	91.2	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	0.508 U	0.525 U	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	0.505	0.573	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	60500	23300	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	11.5	17.9	NA	NA	NA	NA
6010B	COBALT	mg/kg	5.08 U	5.25 U	NA	NA	NA	NA
6010B	IRON	mg/kg	16500	11500	NA	NA	NA	NA
6010B	LEAD	mg/kg	108	171	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	7960	11300	NA	NA	NA	NA
6010B	NICKEL	mg/kg	11.2	10.6	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	508 U	525 U	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	0.508 U	0.525 U	NA	NA	NA	NA
6010B	SILVER	mg/kg	0.508 U	0.525 U	NA	NA	NA	NA
6010B	SODIUM	mg/kg	508 U	525 U	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	13.8	13	NA	NA	NA	NA
6010B	ZINC	mg/kg	123	127	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	0.794 J	1.4 J	NA	NA	NA	NA
6020A	COPPER	mg/kg	27.2	43.6	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	210 J	216 J	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	0.35 U	0.424 U	NA	NA	NA	NA
7471B	MERCURY	mg/kg	0.202	0.201	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ALDRIN	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ENDRIN	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	97.6 UJ	96.3 UJ	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-COMP-03	PSTC-SA3AE-COMP-04	PSTC-SA3AW-01	PSTC-SA3AW-02	PSTC-SA3AW-03	PSTC-SA3AW-04
		Sampling Date	7/11/2013	7/11/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	190 UJ	187 UJ	NA	NA	NA	NA
8081	TOXAPHENE	ug/kg	3850 UJ	3790 UJ	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0379 U	0.0374 U	0.038 U	0.213 U	0.0396 U	0.0393 U
8082	AROCLOR 1221	mg/kg	0.0379 U	0.0374 U	0.038 U	0.213 U	0.0396 U	0.0393 U
8082	AROCLOR 1232	mg/kg	0.0379 U	0.0374 U	0.038 U	0.213 U	0.0396 U	0.0393 U
8082	AROCLOR 1242	mg/kg	0.0379 U	0.0374 U	0.038 U	0.213 U	0.0396 U	0.0393 U
8082	AROCLOR 1248	mg/kg	0.0493	0.0753	0.038 U	0.213 U	0.0437	0.0393 U
8082	AROCLOR 1254	mg/kg	0.0379 U	0.0374 U	0.038 U	0.292	0.0396 U	0.0393 U
8082	AROCLOR 1260	mg/kg	0.0379 U	0.0374 U	0.038 U	0.213 U	0.0396 U	0.0393 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.0493	0.0753	0 U	0.292	0.0437	0 U
8151A	2,4,5-T	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8151A	2,4-D	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8151A	DALAPON	ug/kg	372 U	370 U	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	113 U	112 U	NA	NA	NA	NA
8151A	MCPA	ug/kg	2250 U	2240 U	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	2250 U	2240 U	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	9.36 U	9.32 U	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	10.6 U	10.9 U	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	10.6 U	10.9 U	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	10.6 U	10.9 U	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	21.1 U	21.7 U	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	21.1 U	21.7 U	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	21.1 U	21.7 U	NA	NA	NA	NA
8260	ACETONE	ug/kg	21.1 U	21.7 U	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-COMP-03	PSTC-SA3AE-COMP-04	PSTC-SA3AW-01	PSTC-SA3AW-02	PSTC-SA3AW-03	PSTC-SA3AW-04
		Sampling Date	7/11/2013	7/11/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	ACROLEIN	ug/kg	106 U	109 U	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	106 U	109 U	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	10.6 U	10.9 U	NA	NA	NA	NA
8260	BENZENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	5.28 U	11.5	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	21.1 U	21.7 U	NA	NA	NA	NA
8260	STYRENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TOLUENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	10.6 U	10.9 U	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	5.28 U	5.43 U	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	10.6 U	10.9 U	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	4580 U	4490 U	NA	NA	NA	NA



**Table G-4**  
**SA3-A Post Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-COMP-03	PSTC-SA3AE-COMP-04	PSTC-SA3AW-01	PSTC-SA3AW-02	PSTC-SA3AW-03	PSTC-SA3AW-04
		Sampling Date	7/11/2013	7/11/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	1890 U	1850 U	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	4580 U	4490 U	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	640	498	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	1140 U	1120 U	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	572 U	561 U	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	110	135	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	206	184	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	ANILINE	ug/kg	944 U	926 U	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-COMP-03	PSTC-SA3AE-COMP-04	PSTC-SA3AW-01	PSTC-SA3AW-02	PSTC-SA3AW-03	PSTC-SA3AW-04
		Sampling Date	7/11/2013	7/11/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	ANTHRACENE	ug/kg	413	428	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	1890 U	1850 U	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	1150	1090	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	1040	991	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	1820	1620	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	573	532	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	584	563	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	200 U	196 U	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	200 U	196 U	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	221	239	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	1420	1280	NA	NA	NA	NA
8270	DIALLATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	184	197	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	255	250	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	200 U	196 U	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	200 U	196 U	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	200 U	196 U	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	200 U	196 U	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	9440 U	9260 U	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	2170	2190	NA	NA	NA	NA
8270	FLUORENE	ug/kg	110	158	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	19.1 U	18.7 U	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	507	454	NA	NA	NA	NA
8270	ISODRIN	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	944 U	926 U	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AE-COMP-03	PSTC-SA3AE-COMP-04	PSTC-SA3AW-01	PSTC-SA3AW-02	PSTC-SA3AW-03	PSTC-SA3AW-04
		Sampling Date	7/11/2013	7/11/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	NAPHTHALENE, SVOC	ug/kg	480	423	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	O,O,O- TRIETHYLPHOSPHOROTHIOATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	PARATHION	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	429 U	421 U	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	1670	1880	NA	NA	NA	NA
8270	PHENOL	ug/kg	143 U	140 U	NA	NA	NA	NA
8270	PHORATE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	PYRENE	ug/kg	1970	1850	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	286 U	281 U	NA	NA	NA	NA
8270	SAFROLE	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	944 U	926 U	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	944 U	926 U	NA	NA	NA	NA

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-05	PSTC-SA3AW-06	PSTC-SA3AW-07	PSTC-SA3AW-08	PSTC-SA3AW-09	PSTC-SA3AW-10	PSTC-SA3AW-10
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-05	PSTC-SA3AW-06	PSTC-SA3AW-07	PSTC-SA3AW-08	PSTC-SA3AW-09	PSTC-SA3AW-10	PSTC-SA3AW-10
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.0399 U	0.0401 U	0.0407 U
8082	AROCLOR 1221	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.0399 U	0.0401 U	0.0407 U
8082	AROCLOR 1232	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.0399 U	0.0401 U	0.0407 U
8082	AROCLOR 1242	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.125	0.0401 U	0.0407 U
8082	AROCLOR 1248	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.0399 U	0.0401 U	0.0407 U
8082	AROCLOR 1254	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.0399 U	0.0401 U	0.0407 U
8082	AROCLOR 1260	mg/kg	0.0387 U	0.0399 U	0.04 U	0.0392 U	0.0399 U	0.0401 U	0.0407 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0.125	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-05	PSTC-SA3AW-06	PSTC-SA3AW-07	PSTC-SA3AW-08	PSTC-SA3AW-09	PSTC-SA3AW-10	PSTC-SA3AW-10
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-05	PSTC-SA3AW-06	PSTC-SA3AW-07	PSTC-SA3AW-08	PSTC-SA3AW-09	PSTC-SA3AW-10	PSTC-SA3AW-10
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-05	PSTC-SA3AW-06	PSTC-SA3AW-07	PSTC-SA3AW-08	PSTC-SA3AW-09	PSTC-SA3AW-10	PSTC-SA3AW-10
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-05	PSTC-SA3AW-06	PSTC-SA3AW-07	PSTC-SA3AW-08	PSTC-SA3AW-09	PSTC-SA3AW-10	PSTC-SA3AW-10
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-11	PSTC-SA3AW-12	PSTC-SA3AW-13	PSTC-SA3AW-14	PSTC-SA3AW-15	PSTC-SA3AW-16	PSTC-SA3AW-17
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-11	PSTC-SA3AW-12	PSTC-SA3AW-13	PSTC-SA3AW-14	PSTC-SA3AW-15	PSTC-SA3AW-16	PSTC-SA3AW-17
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	AROCLOR 1221	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	AROCLOR 1232	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	AROCLOR 1242	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	AROCLOR 1248	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	AROCLOR 1254	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	AROCLOR 1260	mg/kg	0.0396 U	0.0388 U	0.0401 U	0.0398 U	0.0407 U	0.0388 U	0.0381 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-11	PSTC-SA3AW-12	PSTC-SA3AW-13	PSTC-SA3AW-14	PSTC-SA3AW-15	PSTC-SA3AW-16	PSTC-SA3AW-17
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-11	PSTC-SA3AW-12	PSTC-SA3AW-13	PSTC-SA3AW-14	PSTC-SA3AW-15	PSTC-SA3AW-16	PSTC-SA3AW-17
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-11	PSTC-SA3AW-12	PSTC-SA3AW-13	PSTC-SA3AW-14	PSTC-SA3AW-15	PSTC-SA3AW-16	PSTC-SA3AW-17
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-11	PSTC-SA3AW-12	PSTC-SA3AW-13	PSTC-SA3AW-14	PSTC-SA3AW-15	PSTC-SA3AW-16	PSTC-SA3AW-17
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-18	PSTC-SA3AW-19	PSTC-SA3AW-20	PSTC-SA3AW-20	PSTC-SA3AW-21	PSTC-SA3AW-22	PSTC-SA3AW-23
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-18	PSTC-SA3AW-19	PSTC-SA3AW-20	PSTC-SA3AW-20	PSTC-SA3AW-21	PSTC-SA3AW-22	PSTC-SA3AW-23
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	AROCLOR 1221	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	AROCLOR 1232	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	AROCLOR 1242	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	AROCLOR 1248	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	AROCLOR 1254	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	AROCLOR 1260	mg/kg	0.0381 U	0.037 U	0.075 U	0.0758 U	0.0376 U	0.0377 U	0.0386 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-18	PSTC-SA3AW-19	PSTC-SA3AW-20	PSTC-SA3AW-20	PSTC-SA3AW-21	PSTC-SA3AW-22	PSTC-SA3AW-23
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-18	PSTC-SA3AW-19	PSTC-SA3AW-20	PSTC-SA3AW-20	PSTC-SA3AW-21	PSTC-SA3AW-22	PSTC-SA3AW-23
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-18	PSTC-SA3AW-19	PSTC-SA3AW-20	PSTC-SA3AW-20	PSTC-SA3AW-21	PSTC-SA3AW-22	PSTC-SA3AW-23
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALLATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-18	PSTC-SA3AW-19	PSTC-SA3AW-20	PSTC-SA3AW-20	PSTC-SA3AW-21	PSTC-SA3AW-22	PSTC-SA3AW-23
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NAPHTHALENE, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	ug/kg	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	ug/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-24	PSTC-SA3AW-COMP-01	PSTC-SA3AW-COMP-02	PSTC-SA3AW-COMP-03	PSTC-SA3AW-COMP-04
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	NA	3780	4770	4100	3340
6010B	ARSENIC	mg/kg	NA	17.6	17.1	24.3	29.3
6010B	BARIUM	mg/kg	NA	88.4	70.1	81.8	85
6010B	BERYLLIUM	mg/kg	NA	0.554	0.567	0.619	0.571 U
6010B	CADMIUM	mg/kg	NA	0.65	0.536	0.649	0.69
6010B	CALCIUM	mg/kg	NA	39900	59500	16800	21300
6010B	CHROMIUM	mg/kg	NA	14.4	11	11.8	11.6
6010B	COBALT	mg/kg	NA	7	5.34 U	5.98 U	5.71 U
6010B	IRON	mg/kg	NA	32300	28700	26700	23900
6010B	LEAD	mg/kg	NA	262	154	226	266
6010B	MAGNESIUM	mg/kg	NA	12300	8070	5990	5770
6010B	NICKEL	mg/kg	NA	17.8	14.8	16	15.3
6010B	POTASSIUM	mg/kg	NA	515	734	604	571 U
6010B	SELENIUM	mg/kg	NA	1.18	1.03	1.11	1.08
6010B	SILVER	mg/kg	NA	0.513 U	0.534 U	0.598 U	0.571 U
6010B	SODIUM	mg/kg	NA	513 U	534 U	598 U	571 U
6010B	VANADIUM	mg/kg	NA	14.4	14.1	14.3	13.6
6010B	ZINC	mg/kg	NA	375	212	296	285
6020A	ANTIMONY	mg/kg	NA	2.92 J	2.14 J	1.78 J	3.12 J
6020A	COPPER	mg/kg	NA	64.9	46	58.9	77.9
6020A	MANGANESE	mg/kg	NA	309 J	295 J	325 J	262 J
6020A	THALLIUM	mg/kg	NA	0.442 U	0.423 U	0.42 U	0.466 U
7471B	MERCURY	mg/kg	NA	0.397	0.22	0.251	0.302
8081	4,4'-DDD	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	4,4'-DDE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	4,4'-DDT	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ALDRIN	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ALPHA-BHC	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ALPHA-CHLORDANE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	BETA-BHC	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	CHLORDANE	ug/kg	NA	1980 UJ	1980 U	2030 UJ	1010 U
8081	DELTA-BHC	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	DIELDRIN	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ENDOSULFAN I	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ENDOSULFAN II	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ENDOSULFAN SULFATE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ENDRIN	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ENDRIN ALDEHYDE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	ENDRIN KETONE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	GAMMA-BHC (LINDANE)	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	GAMMA-CHLORDANE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	HEPTACHLOR	ug/kg	NA	198 UJ	198 U	203 UJ	101 U
8081	HEPTACHLOR EPOXIDE	ug/kg	NA	198 UJ	198 U	203 UJ	101 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-24	PSTC-SA3AW-COMP-01	PSTC-SA3AW-COMP-02	PSTC-SA3AW-COMP-03	PSTC-SA3AW-COMP-04
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8081	KEPONE, PEST	ug/kg	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	NA	383 UJ	385 U	395 UJ	197 U
8081	TOXAPHENE	ug/kg	NA	7790 UJ	7810 U	8010 UJ	4000 U
8082	AROCLOR 1016	mg/kg	0.0373 U	0.192 U	0.0385 U	0.0395 U	0.0394 U
8082	AROCLOR 1221	mg/kg	0.0373 U	0.192 U	0.0385 U	0.0395 U	0.0394 U
8082	AROCLOR 1232	mg/kg	0.0373 U	0.192 U	0.0385 U	0.0395 U	0.0394 U
8082	AROCLOR 1242	mg/kg	0.0373 U	0.192 U	0.0385 U	0.0395 U	0.0394 U
8082	AROCLOR 1248	mg/kg	0.0373 U	0.542 J	0.0385 U	0.0395 U	0.0394 U
8082	AROCLOR 1254	mg/kg	0.0373 U	0.192 U	0.0385 U	0.0395 U	0.0394 U
8082	AROCLOR 1260	mg/kg	0.0373 U	0.395 J	0.0385 U	0.0395 U	0.0394 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.937	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8151A	2,4,5-TP (SILVEX)	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8151A	2,4-D	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8151A	2,4-DB	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8151A	DALAPON	ug/kg	NA	379 U	380 U	393 U	391 U
8151A	DICAMBA	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8151A	DICHLOROPROP	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8151A	DINOSEB	ug/kg	NA	115 U	115 U	119 U	119 U
8151A	MCPA	ug/kg	NA	2300 U	2300 U	2380 U	2370 U
8151A	MECOPROP	ug/kg	NA	2300 U	2300 U	2380 U	2370 U
8151A	PENTACHLOROPHENOL, HERB	ug/kg	NA	9.54 U	9.55 U	9.89 U	9.84 U
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,1,1-TRICHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,1,2-TRICHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,1-DICHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,1-DICHLOROETHENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,2,3-TRICHLOROPROPANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	NA	11 U	10.8 U	11.7 U	11.3 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,2-DICHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	NA	11 U	10.8 U	11.7 U	11.3 U
8260	1,2-DICHLOROPROPANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	NA	11 U	10.8 U	11.7 U	11.3 U
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	2-BUTANONE (MEK)	ug/kg	NA	22 U	21.5 U	23.5 U	22.7 U
8260	2-HEXANONE	ug/kg	NA	22 U	21.5 U	23.5 U	22.7 U
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	NA	22 U	21.5 U	23.5 U	22.7 U
8260	ACETONE	ug/kg	NA	22 U	21.5 U	23.5 U	22.7 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-24	PSTC-SA3AW-COMP-01	PSTC-SA3AW-COMP-02	PSTC-SA3AW-COMP-03	PSTC-SA3AW-COMP-04
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	ACROLEIN	ug/kg	NA	110 U	108 U	117 R	113 U
8260	ACRYLONITRILE	ug/kg	NA	110 U	108 U	117 U	113 U
8260	ALLYL CHLORIDE	ug/kg	NA	11 U	10.8 U	11.7 U	11.3 U
8260	BENZENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	BROMODICHLOROMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	BROMOFORM	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CARBON DISULFIDE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CARBON TETRACHLORIDE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CHLOROBENZENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CHLORODIBROMOMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CHLOROETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CHLOROFORM	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CHLOROMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CHLOROPRENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	DIBROMOMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	DICHLORODIFLUOROMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	ETHYL METHACRYLATE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	ETHYLBENZENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	IODOMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	M,P-XYLENE	ug/kg	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	METHYL METHACRYLATE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	METHYLENE CHLORIDE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	O-XYLENE	ug/kg	NA	NA	NA	NA	NA
8260	PROPIONITRILE	ug/kg	NA	22 U	21.5 U	23.5 U	22.7 U
8260	STYRENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TETRACHLOROETHENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TOLUENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TRICHLOROETHENE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	TRICHLOROFLUOROMETHANE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	VINYL ACETATE	ug/kg	NA	11 U	10.8 U	11.7 U	11.3 U
8260	VINYL CHLORIDE	ug/kg	NA	5.49 U	5.38 U	5.87 U	5.67 U
8260	XYLENE (TOTAL)	ug/kg	NA	11 U	10.8 U	11.7 U	11.3 U
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	1,3,5-TRINITROBENZENE	ug/kg	NA	7490 U	4600 U	7670 U	38300 U



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-24	PSTC-SA3AW-COMP-01	PSTC-SA3AW-COMP-02	PSTC-SA3AW-COMP-03	PSTC-SA3AW-COMP-04
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	1,3-DINITROBENZENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	1,4-NAPHTHOQUINONE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	1,4-PHENYLENEDIAMINE	ug/kg	NA	3090 U	1900 U	3160 U	15800 U
8270	1-NAPHTHYLAMINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	NA	7490 U	4600 U	7670 U	38300 U
8270	2,4,5-TRICHLOROPHENOL	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	2,4,6-TRICHLOROPHENOL	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	2,4-DICHLOROPHENOL	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	2,4-DIMETHYLPHENOL	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	2,4-DINITROPHENOL	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	2,4-DINITROTOLUENE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	2,6-DICHLOROPHENOL	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	2,6-DINITROTOLUENE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	2-ACETYLAMINOFLUORENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	2-CHLORONAPHTHALENE	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	2-CHLOROPHENOL	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	NA	2520	2150	1960	3990
8270	2-METHYLPHENOL	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	2-NAPHTHYLAMINE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	2-NITROANILINE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	2-NITROPHENOL	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	2-PICOLINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	3&4-METHYLPHENOL	ug/kg	NA	1870 U	1150 U	1920 U	9580 U
8270	3,3'-DICHLOROBENZIDINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	3-METHYLCHOLANTHRENE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	3-NITROANILINE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	4-AMINOBIPHENYL	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	4-CHLOROANILINE	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	4-NITROANILINE	ug/kg	NA	936 U	575 U	958 U	4790 U
8270	4-NITROPHENOL, SVOC	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	ACENAPHTHENE	ug/kg	NA	99	54.4	116	2010
8270	ACENAPHTHYLENE	ug/kg	NA	596	295	384	1000
8270	ACETOPHENONE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	ANILINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-24	PSTC-SA3AW-COMP-01	PSTC-SA3AW-COMP-02	PSTC-SA3AW-COMP-03	PSTC-SA3AW-COMP-04
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	ANTHRACENE	ug/kg	NA	572	271	496	5930
8270	BENZIDINE	ug/kg	NA	3090 U	1900 U	3160 U	15800 U
8270	BENZO(A)ANTHRACENE	ug/kg	NA	1890	1100	1550	9470
8270	BENZO[A]PYRENE	ug/kg	NA	1680	1070	1410	6340
8270	BENZO[B]FLUORANTHENE	ug/kg	NA	2680	1790	2630	8400
8270	BENZO[G,H,I]PERYLENE	ug/kg	NA	1400	773	695	3440
8270	BENZO[K]FLUORANTHENE	ug/kg	NA	1170	575	907	2400
8270	BENZYL ALCOHOL	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	NA	328 U	201 U	335 U	1680 U
8270	BUTYL BENZYL PHTHALATE	ug/kg	NA	328 U	201 U	335 U	1680 U
8270	CARBAZOLE	ug/kg	NA	234 U	144 U	240 U	2860
8270	CHLOROBENZILATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	CHRYSENE	ug/kg	NA	2190	1310	1980	9020
8270	DIALLATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	NA	417	216	225	1030
8270	DIBENZOFURAN	ug/kg	NA	692	557	540	2720
8270	DIETHYL PHTHALATE	ug/kg	NA	328 U	201 U	335 U	1680 U
8270	DIMETHOATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	DIMETHYL PHTHALATE	ug/kg	NA	328 U	201 U	335 U	1680 U
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	DI-N-BUTYL PHTHALATE	ug/kg	NA	328 U	201 U	335 U	1680 U
8270	DI-N-OCTYL PHTHALATE	ug/kg	NA	328 U	201 U	335 U	1680 U
8270	DIPHENYLAMINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	DISULFOTON	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	ETHYL METHANESULFONATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	FAMPHUR	ug/kg	NA	15400 U	9490 U	15800 U	79000 U
8270	FLUORANTHENE	ug/kg	NA	3270	1430	2570	19900
8270	FLUORENE	ug/kg	NA	178	68.9	121	2160
8270	HEXACHLOROBENZENE, SVOC	ug/kg	NA	31.2 U	19.2 U	32 U	160 U
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	HEXACHLOROETHANE	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	NA	1080	609	621	3010
8270	ISODRIN	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	ISOPHORONE	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	ISOSAFROLE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	METHAPYRILENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	METHYL METHANESULFONATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	METHYL PARATHION	ug/kg	NA	1540 U	949 U	1580 U	7900 U

Table G-4 SA3-A Post Construction Soil Sampling Results Portage Creek Area Site Kalamazoo, Kalamazoo County, Michigan							
		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-24	PSTC-SA3AW-COMP-01	PSTC-SA3AW-COMP-02	PSTC-SA3AW-COMP-03	PSTC-SA3AW-COMP-04
		Sampling Date	7/10/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	NAPHTHALENE, SVOC	ug/kg	NA	1920	1510	1250	3190
8270	NITROBENZENE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	N-NITROSODIETHYLAMINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	N-NITROSODIMETHYLAMINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	N-NITROSO-DI-N-BUTYLAMINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	N-NITROSODIPHENYLAMINE	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	N-NITROSOMORPHOLINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	N-NITROSOPIPERIDINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	N-NITROSOPYRROLIDINE	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	O-TOLUIDINE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	PARATHION	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	PENTACHLOROBENZENE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	PENTACHLORONITROBENZENE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	PENTACHLOROPHENOL, SVOC	ug/kg	NA	702 U	431 U	719 U	3590 U
8270	PHENACETIN	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	PHENANTHRENE	ug/kg	NA	2580	1370	2270	24100
8270	PHENOL	ug/kg	NA	234 U	144 U	240 U	1200 U
8270	PHORATE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	PRONAMIDE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	PYRENE	ug/kg	NA	2830	1390	2340	17000
8270	PYRIDINE	ug/kg	NA	468 U	288 U	479 U	2390 U
8270	SAFROLE	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	SULFOTEPP	ug/kg	NA	1540 U	949 U	1580 U	7900 U
8270	THIONAZIN	ug/kg	NA	1540 U	949 U	1580 U	7900 U

Notes:  
 \* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06

µg/kg = Microgram per kilogram

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

NA = Not analyzed or applicable

PCB = Polychlorinated biphenyl

SVOC = Semivolatile organic compound

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

VOC = Volatile organic compound

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-COMP-05	PSTC-SA3AW-COMP-06	PSTC-SA3AW-COMP-08*
		Sampling Date	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
6010B	ALUMINUM	mg/kg	3880	3470	3450
6010B	ARSENIC	mg/kg	41.1	48.9	47.8
6010B	BARIUM	mg/kg	71.8	75	107
6010B	BERYLLIUM	mg/kg	0.673	0.553	0.553
6010B	CADMIUM	mg/kg	0.748	1.96	2.07
6010B	CALCIUM	mg/kg	21500	18100	20100
6010B	CHROMIUM	mg/kg	11.4	11	10.9
6010B	COBALT	mg/kg	7.7	5.05 U	5.31
6010B	IRON	mg/kg	38100	26900	25900
6010B	LEAD	mg/kg	380	219	278
6010B	MAGNESIUM	mg/kg	6010	5810	5680
6010B	NICKEL	mg/kg	18.9	19.2	20.4
6010B	POTASSIUM	mg/kg	514 U	505 U	518 U
6010B	SELENIUM	mg/kg	1.06	1.01	1.05
6010B	SILVER	mg/kg	0.514 U	0.505 U	0.518 U
6010B	SODIUM	mg/kg	514 U	505 U	518 U
6010B	VANADIUM	mg/kg	15.6	13.3	12.7
6010B	ZINC	mg/kg	314	348	344
6020A	ANTIMONY	mg/kg	2.32 J	2.29 J	4.09 J
6020A	COPPER	mg/kg	102	82.4	143
6020A	MANGANESE	mg/kg	241 J	228 J	257 J
6020A	THALLIUM	mg/kg	0.419 U	0.4 U	0.438 U
7471B	MERCURY	mg/kg	0.213	0.221	0.225
8081	4,4'-DDD	ug/kg	99.2 U	96.2 U	97.6 U
8081	4,4'-DDE	ug/kg	99.2 U	96.2 U	97.6 U
8081	4,4'-DDT	ug/kg	224 J	215 J	218 J
8081	ALDRIN	ug/kg	99.2 U	96.2 U	97.6 U
8081	ALPHA-BHC	ug/kg	99.2 U	96.2 U	97.6 U
8081	ALPHA-CHLORDANE	ug/kg	99.2 U	96.2 U	97.6 U
8081	BETA-BHC	ug/kg	99.2 U	96.2 U	97.6 U
8081	CHLORDANE	ug/kg	99.2 U	96.2 U	97.6 U
8081	DELTA-BHC	ug/kg	99.2 U	96.2 U	97.6 U
8081	DIELDRIN	ug/kg	99.2 U	96.2 U	97.6 U
8081	ENDOSULFAN I	ug/kg	99.2 U	96.2 U	97.6 U
8081	ENDOSULFAN II	ug/kg	99.2 U	96.2 U	97.6 U
8081	ENDOSULFAN SULFATE	ug/kg	99.2 U	96.2 U	97.6 U
8081	ENDRIN	ug/kg	99.2 U	96.2 U	97.6 U
8081	ENDRIN ALDEHYDE	ug/kg	99.2 U	96.2 U	97.6 U
8081	ENDRIN KETONE	ug/kg	99.2 U	96.2 U	97.6 U
8081	GAMMA-BHC (LINDANE)	ug/kg	99.2 U	96.2 U	97.6 U
8081	GAMMA-CHLORDANE	ug/kg	99.2 U	96.2 U	97.6 U
8081	HEPTACHLOR	ug/kg	99.2 U	96.2 U	97.6 U
8081	HEPTACHLOR EPOXIDE	ug/kg	99.2 U	96.2 U	97.6 U

**Table G-4**  
**SA3-A Post Construction Soil Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-COMP-05	PSTC-SA3AW-COMP-06	PSTC-SA3AW-COMP-08*
		Sampling Date	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8081	KEPONE, PEST	ug/kg	NA	NA	NA
8081	METHOXYCHLOR	ug/kg	193 U	187 U	189 U
8081	TOXAPHENE	ug/kg	3910 U	3790 U	3850 U
8082	AROCLOR 1016	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	AROCLOR 1221	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	AROCLOR 1232	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	AROCLOR 1242	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	AROCLOR 1248	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	AROCLOR 1254	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	AROCLOR 1260	mg/kg	0.0385 U	0.0373 U	0.0379 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U
8151A	2,4,5-T	ug/kg	9.52 U	9.36 U	9.33 U
8151A	2,4,5-TP (SILVEX)	ug/kg	9.52 U	9.36 U	9.33 U
8151A	2,4-D	ug/kg	9.52 U	9.36 U	9.33 U
8151A	2,4-DB	ug/kg	9.52 U	9.36 U	9.33 U
8151A	DALAPON	ug/kg	379 U	372 U	371 U
8151A	DICAMBA	ug/kg	9.52 U	9.36 U	9.33 U
8151A	DICHLOROPROP	ug/kg	9.52 U	9.36 U	9.33 U
8151A	DINOSEB	ug/kg	115 U	113 U	112 U
8151A	MCPA	ug/kg	2290 U	2260 U	2250 U
8151A	MECOPROP	ug/kg	2290 U	2260 U	2250 U
8151A	PENTACHLOROPHENOL, HERB	ug/kg	9.52 U	9.36 U	9.33 U
8260	1,1,1,2-TETRACHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,1,1-TRICHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,1,2,2-TETRACHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,1,2-TRICHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,1-DICHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,1-DICHLOROETHENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,2,3-TRICHLOROPROPANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,2,4-TRICHLOROBENZENE, VOC	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,2-DIBROMO-3-CHLOROPROPANE	ug/kg	11.2 U	10.6 U	10.8 UJ
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,2-DICHLOROBENZENE, VOC	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,2-DICHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,2-DICHLOROETHENE (TOTAL)	ug/kg	11.2 U	10.6 U	10.8 UJ
8260	1,2-DICHLOROPROPANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,3-DICHLOROBENZENE, VOC	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	1,3-DICHLOROPROPENE (TOTAL)	ug/kg	11.2 U	10.6 U	10.8 UJ
8260	1,4-DICHLOROBENZENE, VOC	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	2-BUTANONE (MEK)	ug/kg	22.4 U	21.1 U	21.6 UJ
8260	2-HEXANONE	ug/kg	22.4 U	21.1 U	21.6 UJ
8260	4-METHYL-2-PENTANONE (MIBK)	ug/kg	22.4 U	21.1 U	21.6 UJ
8260	ACETONE	ug/kg	22.4 U	21.1 U	21.6 UJ

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-COMP-05	PSTC-SA3AW-COMP-06	PSTC-SA3AW-COMP-08*
		Sampling Date	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8260	ACROLEIN	ug/kg	112 U	106 U	108 R
8260	ACRYLONITRILE	ug/kg	112 U	106 U	108 UJ
8260	ALLYL CHLORIDE	ug/kg	11.2 U	10.6 U	10.8 UJ
8260	BENZENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	BROMODICHLOROMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	BROMOFORM	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	BROMOMETHANE (METHYL BROMIDE)	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CARBON DISULFIDE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CARBON TETRACHLORIDE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CHLOROBENZENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CHLORODIBROMOMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CHLOROETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CHLOROFORM	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CHLOROMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CHLOROPRENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	CIS-1,3-DICHLOROPROPENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	DIBROMOMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	DICHLORODIFLUOROMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	ETHYL METHACRYLATE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	ETHYLBENZENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	HEXACHLOROBUTADIENE, VOC	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	IODOMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	M,P-XYLENE	ug/kg	NA	NA	NA
8260	METHACRYLONITRILE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	METHYL METHACRYLATE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	METHYLENE CHLORIDE	ug/kg	5.59 U	5.28 U	11.9 J
8260	O-XYLENE	ug/kg	NA	NA	NA
8260	PROPIONITRILE	ug/kg	22.4 U	21.1 U	21.6 UJ
8260	STYRENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TETRACHLOROETHENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TOLUENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TRANS-1,2-DICHLOROETHENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TRANS-1,3-DICHLOROPROPENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TRANS-1,4-DICHLORO-2-BUTENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TRICHLOROETHENE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	TRICHLOROFLUOROMETHANE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	VINYL ACETATE	ug/kg	11.2 U	10.6 U	10.8 UJ
8260	VINYL CHLORIDE	ug/kg	5.59 U	5.28 U	5.4 UJ
8260	XYLENE (TOTAL)	ug/kg	11.2 U	10.6 U	10.8 UJ
8270	1,2,4,5-TETRACHLOROBENZENE	ug/kg	581 U	457 U	568 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	ug/kg	290 U	228 U	284 U
8270	1,2-DICHLOROBENZENE, SVOC	ug/kg	290 U	228 U	284 U
8270	1,3,5-TRINITROBENZENE	ug/kg	9290 U	7310 U	9100 U



Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-COMP-05	PSTC-SA3AW-COMP-06	PSTC-SA3AW-COMP-08*
		Sampling Date	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8270	1,3-DICHLOROBENZENE, SVOC	ug/kg	290 U	228 U	284 U
8270	1,3-DINITROBENZENE	ug/kg	1920 U	1510 U	1880 U
8270	1,4-DICHLOROBENZENE, SVOC	ug/kg	290 U	228 U	284 U
8270	1,4-NAPHTHOQUINONE	ug/kg	1920 U	1510 U	1880 U
8270	1,4-PHENYLENEDIAMINE	ug/kg	3830 U	3010 U	3750 U
8270	1-NAPHTHYLAMINE	ug/kg	1920 U	1510 U	1880 U
8270	2,3,4,6-TETRACHLOROPHENOL	ug/kg	9290 U	7310 U	9100 U
8270	2,4,5-TRICHLOROPHENOL	ug/kg	871 U	685 U	853 U
8270	2,4,6-TRICHLOROPHENOL	ug/kg	871 U	685 U	853 U
8270	2,4-DICHLOROPHENOL	ug/kg	871 U	685 U	853 U
8270	2,4-DIMETHYLPHENOL	ug/kg	871 U	685 U	853 U
8270	2,4-DINITROPHENOL	ug/kg	1920 U	1510 U	1880 U
8270	2,4-DINITROTOLUENE	ug/kg	1160 U	914 U	1140 U
8270	2,6-DICHLOROPHENOL	ug/kg	1160 U	914 U	1140 U
8270	2,6-DINITROTOLUENE	ug/kg	1160 U	914 U	1140 U
8270	2-ACETYLAMINOFLUORENE	ug/kg	1920 U	1510 U	1880 U
8270	2-CHLORONAPHTHALENE	ug/kg	290 U	228 U	284 U
8270	2-CHLOROPHENOL	ug/kg	290 U	228 U	284 U
8270	2-METHYLNAPHTHALENE, SVOC	ug/kg	3410	2520	2850
8270	2-METHYLPHENOL	ug/kg	1160 U	914 U	1140 U
8270	2-NAPHTHYLAMINE	ug/kg	1160 U	914 U	1140 U
8270	2-NITROANILINE	ug/kg	1160 U	914 U	1140 U
8270	2-NITROPHENOL	ug/kg	290 U	228 U	284 U
8270	2-PICOLINE	ug/kg	1920 U	1510 U	1880 U
8270	3&4-METHYLPHENOL	ug/kg	2320 U	1830 U	2270 U
8270	3,3'-DICHLOROBENZIDINE	ug/kg	581 U	457 U	568 UJ
8270	3,3'-DIMETHYLBENZIDINE	ug/kg	1920 U	1510 U	1880 U
8270	3-METHYLCHOLANTHRENE	ug/kg	1160 U	914 U	1140 U
8270	3-NITROANILINE	ug/kg	1160 U	914 U	1140 U
8270	4,6-DINITRO-2-METHYLPHENOL	ug/kg	871 U	685 U	853 U
8270	4-AMINOBIPHENYL	ug/kg	1920 U	1510 U	1880 U
8270	4-BROMOPHENYL-PHENYLEETHER	ug/kg	290 U	228 U	284 U
8270	4-CHLORO-3-METHYLPHENOL	ug/kg	871 U	685 U	853 U
8270	4-CHLOROANILINE	ug/kg	871 U	685 U	853 U
8270	4-CHLOROPHENYL-PHENYLEETHER	ug/kg	290 U	228 U	284 U
8270	4-NITROANILINE	ug/kg	1160 U	914 U	1140 U
8270	4-NITROPHENOL, SVOC	ug/kg	1920 U	1510 U	1880 U
8270	5-NITRO-O-TOLUIDINE	ug/kg	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	ug/kg	1920 U	1510 U	1880 U
8270	ACENAPHTHENE	ug/kg	100	62.8	82.7
8270	ACENAPHTHYLENE	ug/kg	341	238	276
8270	ACETOPHENONE	ug/kg	581 U	457 U	568 U
8270	ANILINE	ug/kg	1920 U	1510 U	1880 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-COMP-05	PSTC-SA3AW-COMP-06	PSTC-SA3AW-COMP-08*
		Sampling Date	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8270	ANTHRACENE	ug/kg	434	265	317
8270	BENZIDINE	ug/kg	3830 U	3010 U	3750 U
8270	BENZO(A)ANTHRACENE	ug/kg	1220	769	989
8270	BENZO[A]PYRENE	ug/kg	1090	627	805
8270	BENZO[B]FLUORANTHENE	ug/kg	2110	1320	1630
8270	BENZO[G,H,I]PERYLENE	ug/kg	676	376	526
8270	BENZO[K]FLUORANTHENE	ug/kg	482	318	367
8270	BENZYL ALCOHOL	ug/kg	1920 U	1510 U	1880 U
8270	BIS(2-CHLOROETHOXY)METHANE	ug/kg	581 U	457 U	568 U
8270	BIS(2-CHLOROETHYL)ETHER	ug/kg	581 U	457 U	568 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	ug/kg	581 U	457 U	568 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	ug/kg	406 U	320 U	398 U
8270	BUTYL BENZYL PHTHALATE	ug/kg	406 U	320 U	398 U
8270	CARBAZOLE	ug/kg	290 U	228 U	284 U
8270	CHLOROBENZILATE	ug/kg	1920 U	1510 U	1880 U
8270	CHRYSENE	ug/kg	1560	1120	1350
8270	DIALLATE	ug/kg	1920 U	1510 U	1880 U
8270	DIBENZ[A,H]ANTHRACENE	ug/kg	228	141	201
8270	DIBENZOFURAN	ug/kg	853	747	835
8270	DIETHYL PHTHALATE	ug/kg	406 U	320 U	398 U
8270	DIMETHOATE	ug/kg	1920 U	1510 U	1880 U
8270	DIMETHYL PHTHALATE	ug/kg	406 U	320 U	398 U
8270	DIMETHYLAMINOAZOBENZENE	ug/kg	1920 U	1510 U	1880 U
8270	DI-N-BUTYL PHTHALATE	ug/kg	406 U	320 U	398 U
8270	DI-N-OCTYL PHTHALATE	ug/kg	406 U	320 U	398 U
8270	DIPHENYLAMINE	ug/kg	581 U	457 U	568 U
8270	DISULFOTON	ug/kg	1920 U	1510 U	1880 U
8270	ETHYL METHANESULFONATE	ug/kg	1920 U	1510 U	1880 U
8270	FAMPHUR	ug/kg	19200 U	15100 U	18800 U
8270	FLUORANTHENE	ug/kg	1830	1060	1400
8270	FLUORENE	ug/kg	110	86.1	96.3
8270	HEXACHLOROBENZENE, SVOC	ug/kg	38.7 U	30.5 U	37.9 U
8270	HEXACHLOROBUTADIENE, SVOC	ug/kg	290 U	228 U	284 U
8270	HEXACHLOROCYCLOPENTADIENE	ug/kg	1920 U	1510 U	1880 UJ
8270	HEXACHLOROETHANE	ug/kg	290 U	228 U	284 U
8270	HEXACHLOROPROPENE	ug/kg	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	ug/kg	557	315	423
8270	ISODRIN	ug/kg	1920 U	1510 U	1880 U
8270	ISOPHORONE	ug/kg	290 U	228 U	284 U
8270	ISOSAFROLE	ug/kg	1920 U	1510 U	1880 U
8270	METHAPYRILENE	ug/kg	1920 U	1510 U	1880 U
8270	METHYL METHANESULFONATE	ug/kg	1920 U	1510 U	1880 U
8270	METHYL PARATHION	ug/kg	1920 U	1510 U	1880 U

Table G-4  
SA3-A Post Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 3A	Slope Area 3A	Slope Area 3A
		Location Type	Post Construction	Post Construction	Post Construction
		Location ID	PSTC-SA3AW-COMP-05	PSTC-SA3AW-COMP-06	PSTC-SA3AW-COMP-08*
		Sampling Date	7/10/2013	7/10/2013	7/10/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8270	NAPHTHALENE, SVOC	ug/kg	2280	1550	1770
8270	NITROBENZENE	ug/kg	581 U	457 U	568 U
8270	N-NITROSODIETHYLAMINE	ug/kg	581 U	457 U	568 U
8270	N-NITROSODIMETHYLAMINE	ug/kg	581 U	457 U	568 U
8270	N-NITroso-DI-N-BUTYLAMINE	ug/kg	581 U	457 U	568 U
8270	N-NITROSODI-N-PROPYLAMINE	ug/kg	290 U	228 U	284 U
8270	N-NITROSODIPHENYLAMINE	ug/kg	290 U	228 U	284 U
8270	N-NITROSOMETHYLETHYLAMINE	ug/kg	581 U	457 U	568 U
8270	N-NITROSOMORPHOLINE	ug/kg	1920 U	1510 U	1880 U
8270	N-NITROSOPIPERIDINE	ug/kg	1920 U	1510 U	1880 U
8270	N-NITROSOPYRROLIDINE	ug/kg	290 U	228 U	284 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	ug/kg	1920 U	1510 U	1880 U
8270	O-TOLUIDINE	ug/kg	1920 U	1510 U	1880 U
8270	PARATHION	ug/kg	1920 U	1510 U	1880 U
8270	PENTACHLOROBENZENE	ug/kg	581 U	457 U	568 U
8270	PENTACHLORONITROBENZENE	ug/kg	1920 U	1510 U	1880 U
8270	PENTACHLOROPHENOL, SVOC	ug/kg	871 U	685 U	853 U
8270	PHENACETIN	ug/kg	1920 U	1510 U	1880 U
8270	PHENANTHRENE	ug/kg	2480	1980	2440
8270	PHENOL	ug/kg	290 U	228 U	284 U
8270	PHORATE	ug/kg	1920 U	1510 U	1880 U
8270	PRONAMIDE	ug/kg	1920 U	1510 U	1880 U
8270	PYRENE	ug/kg	1740	1050	1330
8270	PYRIDINE	ug/kg	581 U	457 U	568 U
8270	SAFROLE	ug/kg	1920 U	1510 U	1880 U
8270	SULFOTEPP	ug/kg	1920 U	1510 U	1880 U
8270	THIONAZIN	ug/kg	1920 U	1510 U	1880 U

Notes:  
\* PSTC-SA3AW-COMP-08 is a duplicate PSTC-3A3AW-COMP-06  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

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**ATTACHMENT G-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 1  
**Direction:** North  
**Subject:** Grading of the staging area

**Date:** 3/28/13  
**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 2  
**Direction:** North  
**Subject:** Grading debris consolidation

**Date:** 3/29/13  
**Photographer:** Mike Browning





**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 3  
**Direction:** West  
**Subject:** Silt fence installed along southern bank

**Date:** 3/29/13  
**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 4  
**Direction:** East  
**Subject:** Entry gate located at the northern end of the Site

**Date:** 4/8/13  
**Photographer:** Mike Browning





**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 5

**Direction:** South

**Subject:** Discharge pipes staged at the southern end of the Site

**Date:** 4/30/13

**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 6

**Direction:** Southeast

**Subject:** Placement of trench boxes at the southern end for bypass system intake

**Date:** 5/3/13

**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 7  
**Direction:** Northwest  
**Subject:** Crane lifting the bypass pumps into place

**Date:** 5/7/13  
**Photographer:** Mike Browning



**Site:** Portage Creek Area Site SA3-A  
**Photograph No.:** 8  
**Direction:** Northwest  
**Subject:** Sipper well installation

**Date:** 5/15/13  
**Photographer:** Mike Browning





**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 9  
**Direction:** Northeast  
**Subject:** By-pass pumps

**Date:** 5/16/13  
**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 10  
**Direction:** North  
**Subject:** Discharge area

**Date:** 5/29/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 11  
**Direction:** South  
**Subject:** Preparation to excavate Grid 3

**Date:** 5/30/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 12  
**Direction:** South  
**Subject:** Excavated and backfilled Grid 3

**Date:** 6/4/13  
**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 13  
**Direction:** NA  
**Subject:** Grid 2 showing gray contamination layer

**Date:** 6/4/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A  
**Photograph No.:** 14  
**Direction:** North  
**Subject:** Truck wash area

**Date:** 6/4/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 15

**Direction:** South

**Subject:** Restoration activities

**Date:** 6/6/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 16

**Direction:** South

**Subject:** Restoration activities

**Date:** 6/6/13

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 17

**Direction:** South

**Subject:** Restoration activities

**Date:** 6/7/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 18

**Direction:** North

**Subject:** Restoration activities

**Date:** 6/10/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 19

**Direction:** North

**Subject:** Finished creek channel

**Date:** 6/17/13

**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA3-A

**Photograph No.:** 20

**Direction:** North

**Subject:** Restoration activities in staging area

**Date:** 7/22/13

**Photographer:** Dustin Bates

## **APPENDIX H**

### **SLOPE AREA 1-C & SLOPE AREA 1-B REPORT PORTAGE CREEK AREA SITE**

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## **LIST OF ATTACHMENTS**

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- H-A Photographic Documentation

# **1. SLOPE AREA BACKGROUND**

## **1.1 DESCRIPTION**

SA1-C and SA1-B are located in downtown Kalamazoo, Michigan. SA1-C is located east of Rochester Avenue (Walbridge Street) and south of East Michigan Avenue. SA1-B is located west of Parkway Drive and south of East Michigan Avenue. The approximate geographic coordinates for SA1-C and SA1-B are latitude 42.2922° North and longitude -85.5738° West and latitude 42.2935° North and longitude -85.5735° West, respectively (**Figure H-1**). The SA1-C excavation area was divided into five grids encompassing approximately 12,500 ft<sup>2</sup>. The SA1-B excavation area consists of one grid encompassing approximately 1,200 ft<sup>2</sup> (**Figure H-2**). Grids 1 - 4 of SA1-C were located within the creek channel, while Grid 5 was located in a flood plain situated along the western side of SA1-C. SA1-C and SA1-B are surrounded by light industrial and commercial businesses in an urban setting. Portage Creek flows from south to north.

## **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from five property owners, providing access to excavation areas. The property owners granted EPA and its contractors permission to establish access roads and staging areas in SA1-C and SA1-B, to conduct contaminated sediment excavation operations, and to restore the properties after excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

## **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm excavation depths within each excavation grid, as necessary
- Pre-excavation topographic surveys to document existing Site conditions
- Pre-sediment removal assessments to document existing Site conditions



- Installation of environmental controls to minimize the impact of excavation activities on original Site features
- Clearing and grubbing to allow physical access to both excavation areas
- Collection of pre-construction soil samples from support areas
- Construction of temporary staging areas and access roads, as necessary
- Construction of two sheet pile cofferdams
- Installation and operation of by-pass pumping systems and groundwater diversion systems to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation, verification, and node sediment samples obtained from excavation grids
- Removal of all environmental controls, access roads, staging areas, and pumping systems
- Post-excavation topographic surveys to document Site conditions
- Post-sediment removal assessments to document Site conditions
- Collection of post-construction soil samples from support areas
- Development of area-specific restoration plans in coordination with property owners

After the completion of Site set-up activities (i.e., installation of groundwater diversion system; construction of upstream and downstream cofferdams, and installation of environmental controls), ERRS excavated TSCA and non-TSCA PCB-contaminated sediment from SA1-C and non-TSCA contaminated sediment from SA1-B. Additional information on excavation activities is provided in Section 3.

A total of sixteen in-stream sediment core samples from five different locations, twenty-six pre-construction soil samples (including two duplicate samples), six confirmation sediment samples, two verification sediment samples, six node sediment samples, and twenty-seven post-construction soil samples (including two duplicate samples) were collected prior to, during, and after excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 - 4.3.

Once excavation and sampling activities were completed, work areas were restored in accordance with the Restoration Plan. Additional information is provided for these activities in Section 5.2.

## 2. PRE-REMOVAL ACTIVITIES

This section discusses the pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment H-A** provides photographic documentation of selected pre-removal activities.

### 2.1 PRE-REMOVAL SAMPLING ACTIVITIES

ERRS and START performed pre-excavation sediment sampling in May 2013. A total of four sediment cores were collected from Grids 1 - 4 of SA1-C and one sediment core was collected from Grid 1 of SA1-B. (Note: Originally, Grid 1 of SA1-B was designated as Grid 4. However, due to only one grid requiring excavation in SA1-B, Grid 4 of SA1-B was re-designated as Grid 1). These cores were processed and sampled in approximately 12-inch intervals. All analytical data results for the pre-removal sediment samples are presented in **Table H-1**. Analytical data validation reports are available upon request.

The sampling was performed in compliance with the FSP, which provides detailed information on number of samples, sample collection methods, and sample analyses that were conducted. The intent of this sampling was to confirm vertical extent of contamination, to determine if contaminant levels were below TSCA landfill disposal parameters, and to finalize sediment excavation depths within each grid. The samples were shipped to ALS Global Laboratory of Holland, Michigan, for PCB analysis. The analytical results verified that sediment contaminant levels for PCBs in portions of Grids 1 through 3 and all of Grids 4 and 5 of SA1-C and in Grid 1 of SA1-B were below TSCA disposal limits. As such, sediment in these grids was excavated as non-TSCA sediment. The analytical results also verified that sediment contaminant levels for PCBs in portions of Grids 1, 2, and 3 of SA1-C were above TSCA disposal limits. As a result, sediment in these grids was excavated as TSCA sediment.

### 2.2 PRE-REMOVAL FEATURES ASSESSMENT

START recorded photographic and video documentation of the pre-removal features, and their surrounding areas [i.e., Rochester Avenue (Walbridge Street), East Michigan Avenue, King Highway, and Parkway Drive]. Fleis and Vandenbrink Engineering Inc. performed a pre-sediment

removal assessment of in-place constructed features within and adjacent to the excavation areas. A report entitled “Pre-Sediment Removal Structure Feature Assessment Removal Areas SA1-A, SA1-B and SA1-C” (Fleis and Vandenbrink Engineering Inc., May 2013) is available upon request. This assessment was used to determine if any corrective actions or repairs were required once excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 SITE SETUP**

### **2.3.1 Removal of Vegetative Cover and Construction of Access Roads**

In order to allow for grid excavation and load-out activities, a subcontractor cleared vegetative cover along both banks of SA1-C that restricted the excavation operations, including overgrown brush, grass, bushes, and trees. The area immediately west of SA1-C was cleared and widened to accommodate a support area, a groundwater diversion system, access roads, a by-pass pumping system, and vehicle access. Additional clearing and grubbing work was performed to facilitate access to the by-pass pumping system discharge area in SA1-B. The eastern bank of the creek channel, from the railroad bridge at the north end of SA1-C to East Michigan Avenue, was cleared and grubbed to allow for the installation of the downstream sheet pile cofferdam and the placement of the by-pass pumping system discharge lines. Access roads were constructed using 1-inch by 3-inch limestone rock and wooden timber mats placed on top of the existing soil or asphalt pavement. In order to use the access road in SA1-B, the subcontractor used an existing curb cut in Parkway Drive. The utility company temporarily removed a power line support wire and a utility pole to facilitate access to the SA1-B excavation area. The support wire and utility pole were immediately replaced upon completion of excavation activities.

### **2.3.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed pre-excavation topographic surveys of the excavation areas on April 2 and 3, 2013. The purpose of these surveys was to document the pre-excavation topographical conditions of the creek channel and surrounding areas, serve as a baseline for determining the contaminated sediment excavation surface area within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS

equipment installed on the excavator used during excavation activities. The RTK-GPS equipment ensured that operators were excavating sediment and backfilling each grid to targeted lateral and vertical limits of each grid.

### **2.3.3 Excavation Area Isolation and Dewatering**

A subcontractor installed two sheet pile cofferdams to isolate excavation areas and facilitate dewatering of contaminated sediments. The first cofferdam was located immediately south of Grid 1 of SA1-C, and the second cofferdam was located downstream of Grid 1 of SA1-B (**Figure H-2**). To further dry out the creek channel, groundwater extraction wells were installed along the eastern and western banks of the excavation grids. The setup consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5-foot centers to an approximate depth of 10 feet below the creek bottom. The sipper wells were connected to a 6-inch-diameter PVC manifold pipe via flexible tubing. The manifold pipe was connected to 6-inch-diameter vacuum pumps that discharged groundwater past the downstream isolation cofferdam. Several days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

### **2.3.4 By-Pass Pumping**

The by-pass pumping system, which was located near the upstream cofferdam along the western bank of SA1-C, consisted of three 18-inch-diameter pumps, a 12-inch-diameter pump, and an 8-inch-diameter back-up pump. The system captured creek water upstream of the southern (upstream) cofferdam in SA1-C and pumped it past the northern (downstream) cofferdam in SA1-B, discharging onto a rock discharge pad consisting of wire gabion baskets filled with large stones. The gabion baskets dissipated water flow velocity and thus minimized erosion of the creek channel bottom. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed.

## **2.4 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize impact of excavation activities. Many of the environmental controls are specified in the SESC Plan. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.
- Construction Entrance/Exit – Site access to SA1-C was established at the intersection of East Michigan Avenue and Rochester Avenue (Walbridge Street), while Site access to SA1-B was established through the existing curb cut located near the intersection of King Highway and Parkway Drive.
- Tire Wash Station - A portable tire wash station was set up in support areas. After each truck was loaded, a crew member sprayed off soil from the truck tires as the truck passed through the station prior to exiting the sites. Wash waters were pumped to a temporary storage tank and then hauled to the wastewater treatment plant to maintain suitable storage capacity.
- Paved Surface Management - A power broom was used to perform housekeeping of paved work areas.
- Dust Control - A water truck applied water for dust control within the staging areas and truck entrances/exits, as necessary.
- Fuel Station - A 300-gallon temporary fuel tank with secondary containment was stationed at the staging area. In addition, two 1,000-gallon temporary fuel tanks with secondary containment were stationed adjacent to the bypass pumps. Fire extinguishers and an emergency spill control kit were placed near the fuel tanks. The spill kit included drums, oil dry, adsorbent pads, and a boom to address small spills.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along both banks of SA1-C and along the eastern bank of SA1-B.
- Rock Discharge Pad - A rock discharge pad was installed, downstream of the isolated area where the discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stones to dissipate discharge velocity and reduce erosion of the creek bed.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the cofferdams installed in the slope area. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### **3. EXCAVATION/DISPOSAL ACTIVITIES**

Excavation of contaminated sediments commenced in Grid 1 of SA1-C and continued from south to north through Grid 4. The floodplain area (Grid 5) on the western bank of SA1-C was then excavated and backfilled with the same on-Site soil used in SA3-A, as approved by property

owners. The contaminated sediments were then excavated in SA1-B. **Attachment H-A** provides photographic documentation of the excavation activities. The table below lists the excavation details, including targeted excavation depths.

### SA1-C AND SA1-B EXCAVATION DETAILS

Grid	Target Excavation Depth (inches bss)	Final Excavation Depth (inches bss)	Surface Area of Excavated Sediment (ft <sup>2</sup> )	Volume of Excavated Sediment (yd <sup>3</sup> )
SA1-C 1	36	50	1762	272
SA1-C 2	36	49	1518	230
SA1-C 3	36	46	1837	261
SA1-C 4	36	50	1162	179
SA1-C 5	36	44	3277	445
SA1-B 1	24	27	1445	120

bss = Below sediment surface

ft<sup>2</sup> = Square feet

yd<sup>3</sup> = Cubic yard

In order to access contaminated sediments, a long reach excavator was positioned along the western bank of SA1-C and along the eastern bank of SA1-B. If sediments were sufficiently dry, the long reach excavator loaded excavated material directly into tri-axle dump trucks that were capable of hauling approximately 10 yd<sup>3</sup> of sediment. After loading, the dump trucks hauled the sediment directly to the John Street staging pad. If sediments were too wet for direct shipment, excavated material was loaded into a 20 yd<sup>3</sup> mixing box, where a corn cob-based absorbent material was mixed in by a second excavator, solidifying the sediment prior to shipment to the John Street staging pad. This practice avoided any leakage of potentially contaminated liquids from dump trucks onto the roadways between the excavation area and the John Street staging pad. The tri-axle dump trucks followed a truck route specified in the TCP.

All contaminated sediments were transported to the John Street staging area, where the tri-axle dump trucks emptied their loads onto a staging pad designed to contain contaminated sediments along with any residual water or run-off from precipitation. Before returning to the excavation support area, tri-axle dump trucks passed through a tire wash station positioned on the staging pad. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient



quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills.

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils on creek banks and in support areas. Support areas were divided into 2,500ft<sup>2</sup> sampling grids for PCB analysis and 10,000 ft<sup>2</sup> sampling areas for analysis of TCL VOCs and SVOCS, TCL pesticides and herbicides, TAL metals, and PCBs. All analytical data results for the pre-construction soil samples are presented in **Table H-2**. Analytical data validation reports are available upon request.

Twenty 2,500-ft<sup>2</sup> soil samples (including two duplicate samples) and five 10,000-ft<sup>2</sup> composite soil samples were collected from SA1-C. One 2,500-ft<sup>2</sup> soil sample was collected from SA1-B. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500-ft<sup>2</sup> grid. Each 10,000-ft<sup>2</sup> composite sample was generated by combining and homogenizing residual material from four 2,500-ft<sup>2</sup> composite samples.

### **4.2 CONFIRMATION, VERIFICATION, AND NODE SEDIMENT SAMPLING**

During and after excavation of contaminated sediments, START and EPA collected confirmation, verification, and node sediment samples. Verification sampling was conducted in certain grids where visual evidence of paper sludge or heavily stained soils was observed at original target depths specified in the Technical Memorandum. The purpose of the verification sampling was to confirm whether or not PCB contamination still existed, warranting further excavation to meet cleanup standards. All analytical data results for confirmation sediment samples are presented in **Table H-3**. Analytical data validation reports are available upon request.

Five confirmation samples were collected from Grids 1 - 5 of SA1-C and one confirmation sample was collected from Grid 1 of SA1-B at the final excavation depth. Verification samples were

collected from Grids 1 and 3 of SA1-C at the original target depth of 36 inches below the sediment surface. Verification samples were not collected from all grids for cost and time-efficiency considerations. In the other grids, if visual evidence of paper sludge or heavily stained soils was observed at original target depths, excavation continued beyond the target depth until grids were visibly clean of contaminated sediment.

For confirmation and verification sediment samples, one six-point composite sample was collected from each grid for PCB analysis. Results were evaluated against the following performance standards:

- For designated stream sediments, less than or equal to 10 mg/kg of PCBs, with a performance standard goal of 1 mg/kg
- For designated PCB-contaminated floodplain and bank soils within the Portage Creek area, 10 mg/kg with a performance standard goal of 5 mg/kg

Node samples were collected from Grid 5 of SA1-C for statistical analysis of project quality objectives for the overall Superfund Site operable unit. The six discrete node locations used for each node sample coincided with six node locations used for composite confirmation samples.

### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as the pre-construction samples, and used the same grid areas and sample node locations. All analytical data results for the post-construction soil samples are presented in **Table H-4**. Analytical data validation reports are available upon request.

For SA1-C, eighteen 2,500-ft<sup>2</sup> grids were sampled for PCB analysis and five 10,000-ft<sup>2</sup> composite samples were collected for analysis. For SA1-B, one 2,500-ft<sup>2</sup> grid was sampled for PCB analysis and one 10,000-ft<sup>2</sup> composite sample was collected for analysis. The 2,500-ft<sup>2</sup> composite samples were analyzed for PCBs and were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. The 10,000-ft<sup>2</sup> composite samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides and TAL metals. To ensure that work activities did not result in contaminating the support area, results of the post-construction samples were compared to results of the pre-construction samples.

## **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-site exposure to dust using an Action Level of  $0.25 \text{ mg/m}^3$  for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of excavation areas during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure H-3** shows the DataRAM monitoring locations.

Any exceedances in the Action Levels resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

## **5. POST-REMOVAL ACTIVITIES**

### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Areas SA1-A, SA1-B and SA1-C” (Fleis and Vandenbrink Engineering Inc., October 2013), available upon request.

### **5.2 RESTORATION**

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment H-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of the excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing Site infrastructure and equipment required to conduct sediment excavation operations and making any necessary repairs to property and/or constructed features resulting from sediment excavation operations. The curb cut used for the construction entrance/exit to SA1-B was repaired after the completion of excavation operations. The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by

sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until the vegetation was re-established (see Section 5.2.2).

### **5.2.1 Bank Stabilization and Creek Channel Backfilling**

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the eastern and western banks of Portage Creek. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inch) were placed every three feet on the waterside and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.

Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from excavation activities. All corrective actions necessary to repair any damaged features resulting from sediment excavation operations were completed. EPA coordinated with appropriate stakeholders to verify their acceptance of Site repairs and conducted final Site walk-through inspections with property owners.

### **5.2.2 Re-vegetation**

Once the overall area was re-graded, a temporary grass seed/fertilizer mix was applied along with straw or coir matting to prevent erosion as specified in the Restoration Plan. An area-specific restoration plan was completed (available upon request) in coordination with the property owners and in accordance with the overall Site Restoration Plan. Due to future redevelopment plans, the property owner requested that EPA forgo final restoration activities on the western bank of SA1-C. Areas on the eastern bank of SA1-C and SA1-B were covered with either 6-inch or 1-inch by 3-inch stone, underlain by an 8-ounce non-woven geotextile fabric, as requested by the property owner. Finally, part of the SA1-B support area was re-utilized for the bypass pumping system support area for SA1-A (see Section 2.4.3 of **Appendix I**).

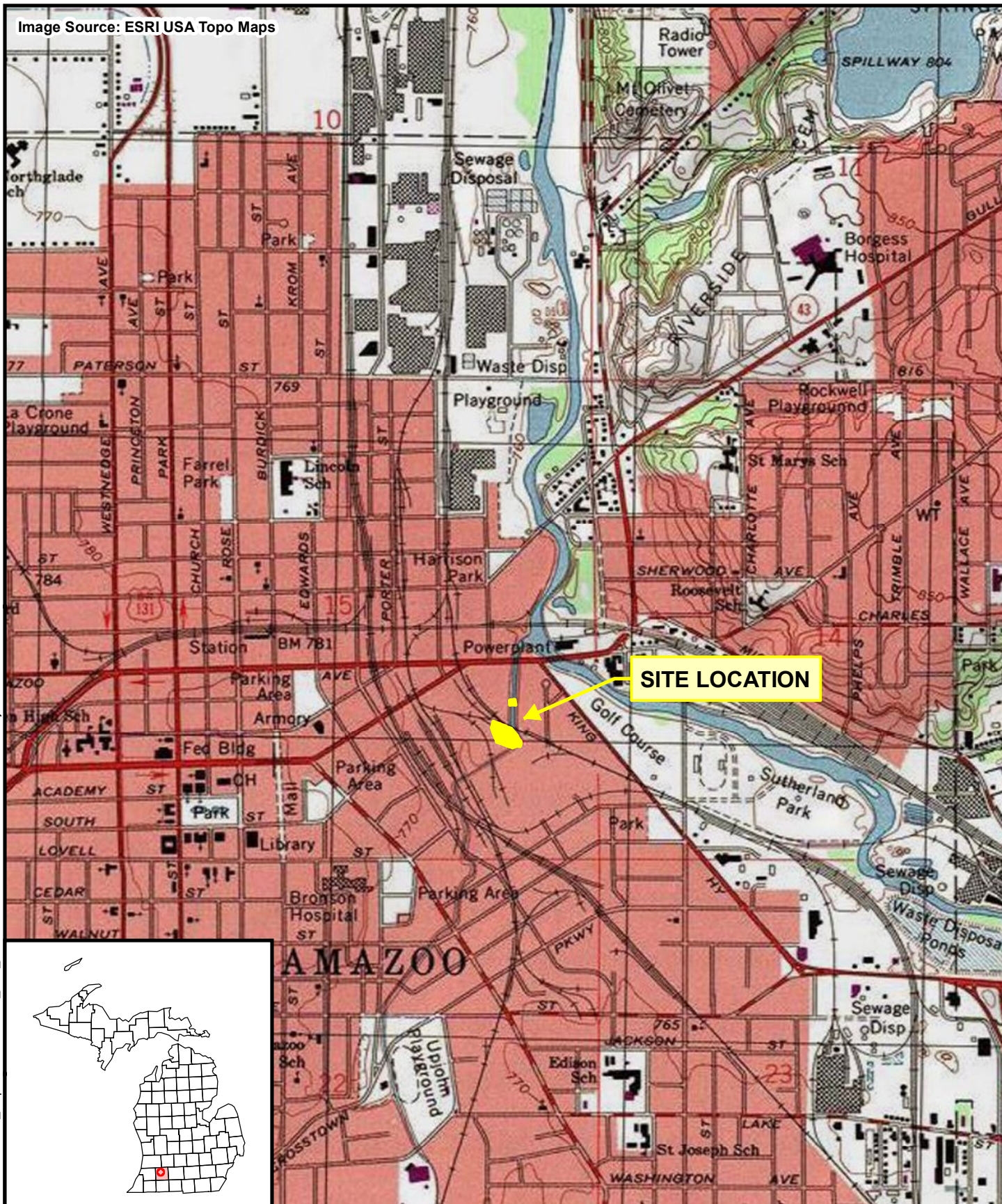
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## FIGURES

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Image Source: ESRI USA Topo Maps



#### Legend

Site Boundary

0 2,000 Feet



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Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



Prepared By:  
**WESTON SOLUTIONS, INC**

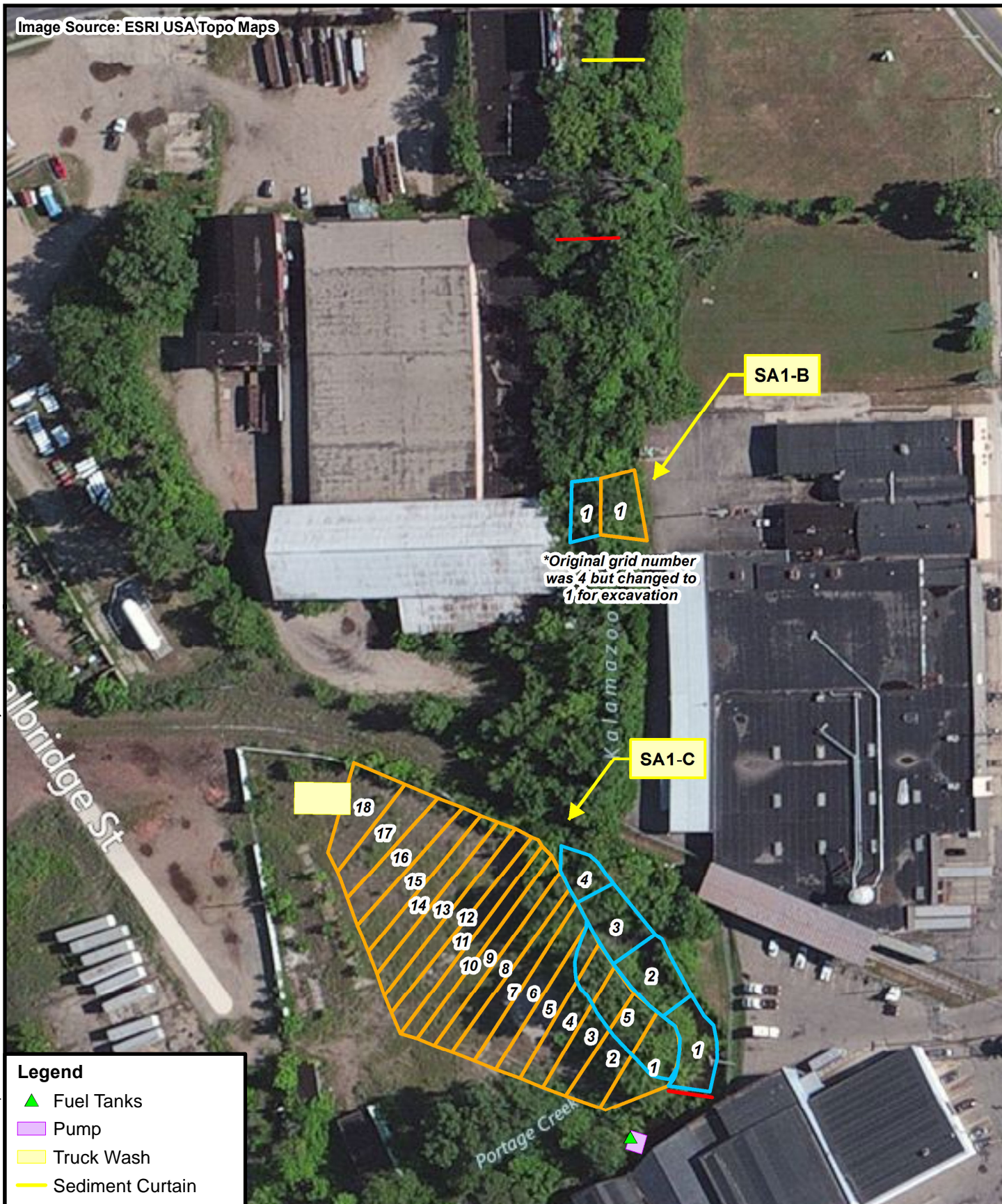
360 East Maple Road  
Suite R  
Troy, Michigan 48083

#### Figure H-1








Site Location Map  
Portage Creek Area SA1-C and SA1-B  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI USA Topo Maps



#### Legend

-  Fuel Tanks
  -  Pump
  -  Truck Wash
  -  Sediment Curtain
  -  Dams
  -  Construction Grids
  -  Removal Grids
- 0 150 Feet
- N



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TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



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**WESTON SOLUTIONS, INC**

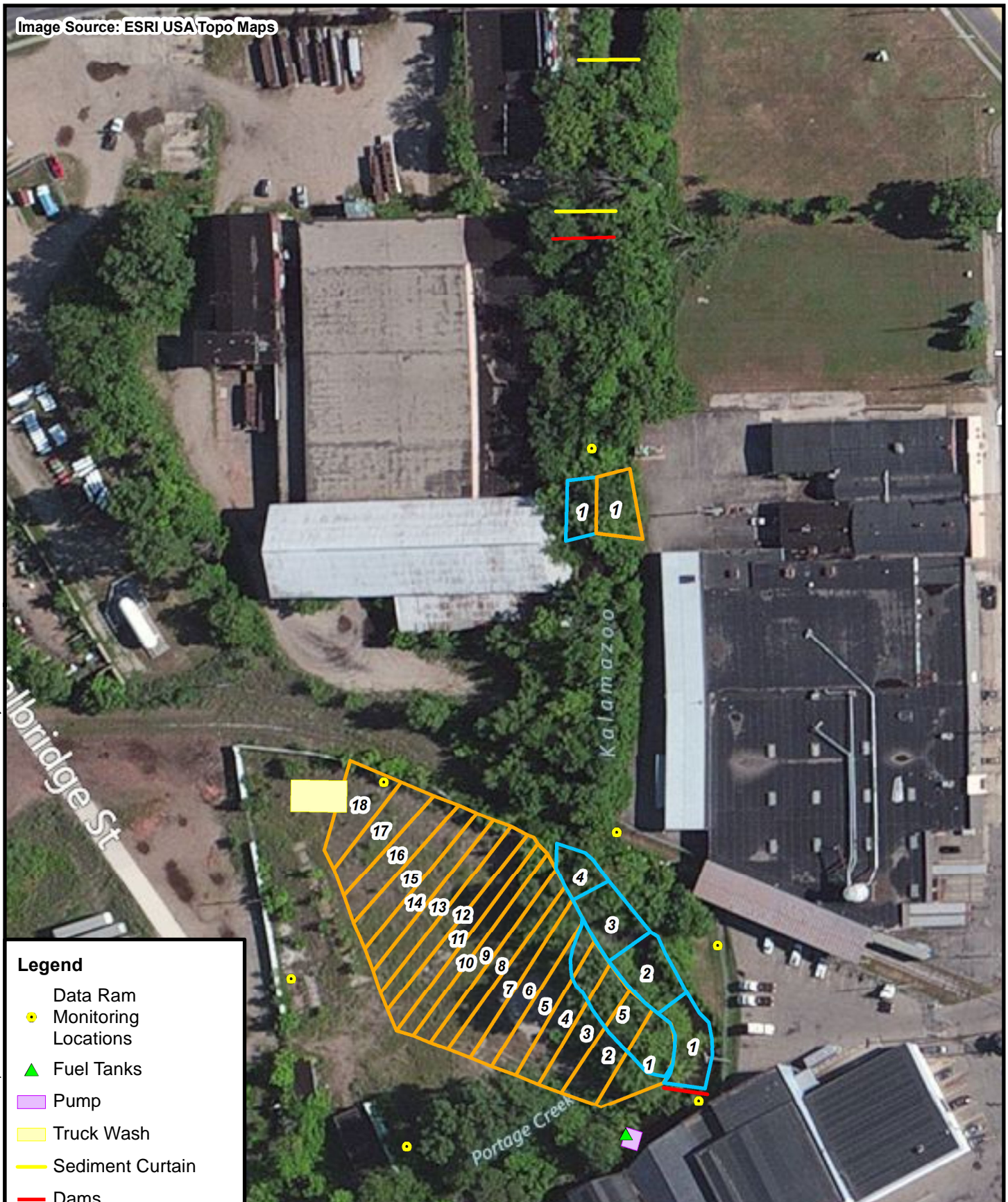
360 East Maple Road  
Suite R  
Troy, Michigan 48083

**Figure H-2**  
Site Features Map  
Portage Creek Area SA1-C and SA1-B  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI USA Topo Maps

FILE: D:\Portage\_Creek\Removal\_Report\SA1C-BH-4\_DataRAMs.mxd 12/16/2013 12:09:02 PM wjojakon



### Legend

- Data Ram
- Monitoring Locations
- Fuel Tanks
- Pump
- Truck Wash
- Sediment Curtain
- Dams
- Construction Grids N
- Removal Grids

0 150 Feet



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### Figure H-3

DataRAM Monitoring Location Map  
Portage Creek Area SA1-C and SA1-B  
Kalamazoo, Kalamazoo County,  
Michigan

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## TABLES

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**Table H-1**  
**SA1-C and SA1-B Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1B	Slope Area 1C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA1B-1	PRSD-SA1B-1	PRSD-SA1B-1	PRSD-SA1C-1
		Field Sample ID	PRSD-SA1B-1(012")-050213	PRSD-SA1B-1(12-24")-050213	PRSD-SA1B-1(24-31")-050213	PRSD-SA1C-1(0-12")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	0- 12	12- 24	24- 31	0- 12
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.063 U	0.051 U	0.065 U	0.059 U
8082	AROCLOR 1221	mg/kg	0.063 U	0.051 U	0.065 U	0.059 U
8082	AROCLOR 1232	mg/kg	0.063 U	0.051 U	0.065 U	0.059 U
8082	AROCLOR 1242	mg/kg	0.71	0.086	0.065 U	6.1
8082	AROCLOR 1248	mg/kg	0.063 U	0.051 U	0.065 U	0.059 U
8082	AROCLOR 1254	mg/kg	0.19	0.051 U	0.065 U	2.3
8082	AROCLOR 1260	mg/kg	0.063 U	0.051 U	0.065 U	0.059 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.9	0.086	0 U	8.4

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA1C-1	PRSD-SA1C-1	PRSD-SA1C-1	PRSD-SA1C-2
		Field Sample ID	PRSD-SA1C-1(12-24")-050213	PRSD-SA1C-1(24-33")-050213	PRSD-SA1C-1(33-45")-050213	PRSD-SA1C-2(0-12")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	12- 24	24- 33	33- 45	0- 12
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.069 U	0.07 U	0.082 U	0.068 U
8082	AROCLOR 1221	mg/kg	0.069 U	0.07 U	0.082 U	0.068 U
8082	AROCLOR 1232	mg/kg	0.069 U	0.07 U	0.082 U	0.068 U
8082	AROCLOR 1242	mg/kg	3.5	0.07 U	4	0.53
8082	AROCLOR 1248	mg/kg	0.069 U	0.07 U	0.082 U	0.068 U
8082	AROCLOR 1254	mg/kg	1.6	0.07 U	1.6	0.17
8082	AROCLOR 1260	mg/kg	0.069 U	0.07 U	0.082 U	0.068 U
8082	Total PCBs (Sum of Detections)	mg/kg	5.1	0 U	5.6	0.7

**Table H-1**  
**SA1-C and SA1-B Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA1C-2	PRSD-SA1C-3	PRSD-SA1C-3	PRSD-SA1C-3
		Field Sample ID	PRSD-SA1C-2(12-21")-050213	PRSD-SA1C-3(0-12")-050213	PRSD-SA1C-3(12-24")-050213	PRSD-SA1C-3(24-39")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	12- 21	0- 12	12- 24	24- 39
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.048 U	0.049 U	0.05 U	0.047 U
8082	AROCLOR 1221	mg/kg	0.048 U	0.049 U	0.05 U	0.047 U
8082	AROCLOR 1232	mg/kg	0.048 U	0.049 U	0.05 U	0.047 U
8082	AROCLOR 1242	mg/kg	0.081	0.38	1.5	0.047 U
8082	AROCLOR 1248	mg/kg	0.048 U	0.049 U	0.05 U	0.047 U
8082	AROCLOR 1254	mg/kg	0.048 U	0.087	0.19	0.047 U
8082	AROCLOR 1260	mg/kg	0.048 U	0.049 U	0.05 U	0.047 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.081	0.467	1.69	0 U

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Removal	Pre-Removal	Pre-Removal	Pre-Removal
		Location ID	PRSD-SA1C-3	PRSD-SA1C-4	PRSD-SA1C-4	PRSD-SA1C-4
		Field Sample ID	PRSD-SA1C-3(39-51")-050213	PRSD-SA1C-4(0-12")-050213	PRSD-SA1C-4(12-24")-050213	PRSD-SA1C-4 (24-35")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	39- 51	0- 12	12- 24	24- 35
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.046 U	0.046 U	0.048 UJ	0.045 U
8082	AROCLOR 1221	mg/kg	0.046 U	0.046 U	0.048 UJ	0.045 U
8082	AROCLOR 1232	mg/kg	0.046 U	0.046 U	0.048 UJ	0.045 U
8082	AROCLOR 1242	mg/kg	0.046 U	0.28	0.13 J	0.045 U
8082	AROCLOR 1248	mg/kg	0.046 U	0.046 U	0.048 UJ	0.045 U
8082	AROCLOR 1254	mg/kg	0.046 U	0.088	0.19 J	0.045 U
8082	AROCLOR 1260	mg/kg	0.046 U	0.046 U	0.048 UJ	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.368	0.32	0 U

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

UJ = Undetected at specified estimated reporting limit



Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1B-01	PREC-SA1C-01	PREC-SA1C-02	PREC-SA1C-03	PREC-SA1C-04	PREC-SA1C-05	PREC-SA1C-05	PREC-SA1C-06	PREC-SA1C-07
		Field Sample ID	PREC-SA1B-01-032813	PREC-SA1C-01-040113	PREC-SA1C-02-040113	PREC-SA1C-03-040113	PREC-SA1C-04-040113	PREC-SA1C-05-040113	PREC-SA1C-05-040113-DP	PREC-SA1C-06-040113	PREC-SA1C-07-040113
		Sampling Date	3/28/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
6010B	ALUMINUM	mg/kg	3310	NA	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	2.28 J	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	15.6	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	85.3	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	0.547 U	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	1.61	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	28400	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	14.4	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	5.47 U	NA	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	1190 J	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	17500	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	145	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	7950	NA	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	417 J	NA	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	0.421 J	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	25.5	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	547 U	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	0.971	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	0.547 U	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	547 U	NA	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	0.252 U	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	12.2	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	212	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	1130 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	113 UJ	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1B-01	PREC-SA1C-01	PREC-SA1C-02	PREC-SA1C-03	PREC-SA1C-04	PREC-SA1C-05	PREC-SA1C-05	PREC-SA1C-06	PREC-SA1C-07
		Field Sample ID	PREC-SA1B-01-032813	PREC-SA1C-01-040113	PREC-SA1C-02-040113	PREC-SA1C-03-040113	PREC-SA1C-04-040113	PREC-SA1C-05-040113	PREC-SA1C-05-040113-DP	PREC-SA1C-06-040113	PREC-SA1C-07-040113
		Sampling Date	3/28/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8081	KEPONE, PEST	µg/kg	2190 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	219 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	4450 UJ	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0439 UJ	22.8 U	4.68 U	0.515 U	0.36 U	0.733 U	0.368 U	4.03 U	1.78 U
8082	AROCLOR 1221	mg/kg	0.0439 UJ	22.8 U	4.68 U	0.515 U	0.36 U	0.733 U	0.368 U	4.03 U	1.78 U
8082	AROCLOR 1232	mg/kg	0.0439 UJ	22.8 U	4.68 U	0.515 U	0.36 U	0.733 U	0.368 U	4.03 U	1.78 U
8082	AROCLOR 1242	mg/kg	0.0439 UJ	22.8 U	4.68 U	0.515 U	0.36 U	0.733 U	0.368 U	4.03 U	1.78 U
8082	AROCLOR 1248	mg/kg	0.0439 UJ	22.8 U	4.68 U	0.515 U	0.36 U	0.733 U	0.368 U	12.1	4.76
8082	AROCLOR 1254	mg/kg	0.0439 UJ	47.1	25.7	0.515 U	0.36 U	0.733 U	0.368 U	4.03 U	1.78 U
8082	AROCLOR 1260	mg/kg	0.113 J	22.8 U	4.68 U	0.62	1.18	0.984	0.605	4.03 U	2.25
8082	Total PCBs (Sum of Detections)	mg/kg	0.113	47.1	25.7	0.62	1.18	0.984	0.605	12.1	7.01
8151A	2,4,5-T	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	444 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	135 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	2690 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	2690 U	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	11.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	26.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	26.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	26.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	26.2 U	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1B-01	PREC-SA1C-01	PREC-SA1C-02	PREC-SA1C-03	PREC-SA1C-04	PREC-SA1C-05	PREC-SA1C-05	PREC-SA1C-06	PREC-SA1C-07
		Field Sample ID	PREC-SA1B-01-032813	PREC-SA1C-01-040113	PREC-SA1C-02-040113	PREC-SA1C-03-040113	PREC-SA1C-04-040113	PREC-SA1C-05-040113	PREC-SA1C-05-040113-DP	PREC-SA1C-06-040113	PREC-SA1C-07-040113
		Sampling Date	3/28/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	ACROLEIN	µg/kg	131 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	131 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	26.2 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	6.56 U	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	13.1 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1B-01	PREC-SA1C-01	PREC-SA1C-02	PREC-SA1C-03	PREC-SA1C-04	PREC-SA1C-05	PREC-SA1C-05	PREC-SA1C-06	PREC-SA1C-07
		Field Sample ID	PREC-SA1B-01-032813	PREC-SA1C-01-040113	PREC-SA1C-02-040113	PREC-SA1C-03-040113	PREC-SA1C-04-040113	PREC-SA1C-05-040113	PREC-SA1C-05-040113-DP	PREC-SA1C-06-040113	PREC-SA1C-07-040113
		Sampling Date	3/28/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	1,3,5-TRINITROBENZENE	µg/kg	10700 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	4430 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	10700 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	603	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	2690 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	1340 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	138 J	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	521	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1B-01	PREC-SA1C-01	PREC-SA1C-02	PREC-SA1C-03	PREC-SA1C-04	PREC-SA1C-05	PREC-SA1C-05	PREC-SA1C-06	PREC-SA1C-07
		Field Sample ID	PREC-SA1B-01-032813	PREC-SA1C-01-040113	PREC-SA1C-02-040113	PREC-SA1C-03-040113	PREC-SA1C-04-040113	PREC-SA1C-05-040113	PREC-SA1C-05-040113-DP	PREC-SA1C-06-040113	PREC-SA1C-07-040113
		Sampling Date	3/28/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	ACETOPHENONE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	958	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	4430 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	3140	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	2740	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	4340	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	2230	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	1540	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	444	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	3420	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	514	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	1180	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	22200 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	6280	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	214	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	44.8 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	1850	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1B-01	PREC-SA1C-01	PREC-SA1C-02	PREC-SA1C-03	PREC-SA1C-04	PREC-SA1C-05	PREC-SA1C-05	PREC-SA1C-06	PREC-SA1C-07
		Field Sample ID	PREC-SA1B-01-032813	PREC-SA1C-01-040113	PREC-SA1C-02-040113	PREC-SA1C-03-040113	PREC-SA1C-04-040113	PREC-SA1C-05-040113	PREC-SA1C-05-040113-DP	PREC-SA1C-06-040113	PREC-SA1C-07-040113
		Sampling Date	3/28/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	METHAPYRILENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	894	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	1010 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	2870	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	336 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	5520	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	672 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	2220 U	NA	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound



Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-08	PREC-SA1C-09	PREC-SA1C-10	PREC-SA1C-11	PREC-SA1C-12	PREC-SA1C-13	PREC-SA1C-14	PREC-SA1C-15	PREC-SA1C-15
		Field Sample ID	PREC-SA1C-08-040113	PREC-SA1C-09-040113	PREC-SA1C-10-040113	PREC-SA1C-11-040113	PREC-SA1C-12-040113	PREC-SA1C-13-040113	PREC-SA1C-14-040113	PREC-SA1C-15-040113	PREC-SA1C-15-040113-DP
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-08	PREC-SA1C-09	PREC-SA1C-10	PREC-SA1C-11	PREC-SA1C-12	PREC-SA1C-13	PREC-SA1C-14	PREC-SA1C-15	PREC-SA1C-15
		Field Sample ID	PREC-SA1C-08-040113	PREC-SA1C-09-040113	PREC-SA1C-10-040113	PREC-SA1C-11-040113	PREC-SA1C-12-040113	PREC-SA1C-13-040113	PREC-SA1C-14-040113	PREC-SA1C-15-040113	PREC-SA1C-15-040113-DP
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.382 U	0.354 U	0.706 R	1.87 U	0.698 U	0.345 U	0.358 U	0.361 U	0.718 U
8082	AROCLOR 1221	mg/kg	0.382 U	0.354 U	0.706 U	1.87 U	0.698 U	0.345 U	0.358 U	0.361 U	0.718 U
8082	AROCLOR 1232	mg/kg	0.382 U	0.354 U	0.706 U	1.87 U	0.698 U	0.345 U	0.358 U	0.361 U	0.718 U
8082	AROCLOR 1242	mg/kg	0.382 U	0.354 U	0.706 U	9.94	0.698 U	0.345 U	0.358 U	0.449	1.51
8082	AROCLOR 1248	mg/kg	2.56	0.489	2.17	1.87 U	0.698 U	0.345 U	0.358 U	0.361 U	0.718 U
8082	AROCLOR 1254	mg/kg	0.382 U	0.354 U	0.706 U	1.87 U	1.76	1.21	1.83	1.91	3.68
8082	AROCLOR 1260	mg/kg	1.9	1.66	2.02 J	1.87 U	0.698 U	0.345 U	0.358 U	0.361 U	0.718 U
8082	Total PCBs (Sum of Detections)	mg/kg	4.46	2.149	4.19	9.94	1.76	1.21	1.83	2.359	5.19
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-08	PREC-SA1C-09	PREC-SA1C-10	PREC-SA1C-11	PREC-SA1C-12	PREC-SA1C-13	PREC-SA1C-14	PREC-SA1C-15	PREC-SA1C-15
		Field Sample ID	PREC-SA1C-08-040113	PREC-SA1C-09-040113	PREC-SA1C-10-040113	PREC-SA1C-11-040113	PREC-SA1C-12-040113	PREC-SA1C-13-040113	PREC-SA1C-14-040113	PREC-SA1C-15-040113	PREC-SA1C-15-040113-DP
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-08	PREC-SA1C-09	PREC-SA1C-10	PREC-SA1C-11	PREC-SA1C-12	PREC-SA1C-13	PREC-SA1C-14	PREC-SA1C-15	PREC-SA1C-15
		Field Sample ID	PREC-SA1C-08-040113	PREC-SA1C-09-040113	PREC-SA1C-10-040113	PREC-SA1C-11-040113	PREC-SA1C-12-040113	PREC-SA1C-13-040113	PREC-SA1C-14-040113	PREC-SA1C-15-040113	PREC-SA1C-15-040113-DP
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-08	PREC-SA1C-09	PREC-SA1C-10	PREC-SA1C-11	PREC-SA1C-12	PREC-SA1C-13	PREC-SA1C-14	PREC-SA1C-15	PREC-SA1C-15
		Field Sample ID	PREC-SA1C-08-040113	PREC-SA1C-09-040113	PREC-SA1C-10-040113	PREC-SA1C-11-040113	PREC-SA1C-12-040113	PREC-SA1C-13-040113	PREC-SA1C-14-040113	PREC-SA1C-15-040113	PREC-SA1C-15-040113-DP
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-08	PREC-SA1C-09	PREC-SA1C-10	PREC-SA1C-11	PREC-SA1C-12	PREC-SA1C-13	PREC-SA1C-14	PREC-SA1C-15	PREC-SA1C-15
		Field Sample ID	PREC-SA1C-08-040113	PREC-SA1C-09-040113	PREC-SA1C-10-040113	PREC-SA1C-11-040113	PREC-SA1C-12-040113	PREC-SA1C-13-040113	PREC-SA1C-14-040113	PREC-SA1C-15-040113	PREC-SA1C-15-040113-DP
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit									
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound



Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-16	PREC-SA1C-17	PREC-SA1C-18	PREC-SA1C-COMP-01	PREC-SA1C-COMP-02	PREC-SA1C-COMP-03	PREC-SA1C-COMP-04
		Field Sample ID	PREC-SA1C-16-040113	PREC-SA1C-17-040113	PREC-SA1C-18-040113	PREC-SA1C-COMPOSITE-01-040113	PREC-SA1C-COMPOSITE-02-040113	PREC-SA1C-COMPOSITE-03-040113	PREC-SA1C-COMPOSITE-04-040113
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	7190	7450	6390	5270
6020A	ANTIMONY	mg/kg	NA	NA	NA	9.22 J	21.9 J	10.4 J	3.64 J
6010B	ARSENIC	mg/kg	NA	NA	NA	30.9	21.1	20.8	12.7
6010B	BARIUM	mg/kg	NA	NA	NA	1110	263	343	381
6010B	BERYLLIUM	mg/kg	NA	NA	NA	0.579 U	0.499 U	0.528 U	0.471 U
6010B	CADMIUM	mg/kg	NA	NA	NA	9.54	13.1	18.3	13.8
6010B	CALCIUM	mg/kg	NA	NA	NA	21200	25700	27900	18700
6010B	CHROMIUM	mg/kg	NA	NA	NA	234	192	646	100
6010B	COBALT	mg/kg	NA	NA	NA	14.3	11.7	16.5	23.2
6020A	COPPER	mg/kg	NA	NA	NA	1300 J	777 J	742 J	353 J
6010B	IRON	mg/kg	NA	NA	NA	142000	142000	123000	99100
6010B	LEAD	mg/kg	NA	NA	NA	1930	1330	1740	1540
6010B	MAGNESIUM	mg/kg	NA	NA	NA	4850	9040	11700	7020
6020A	MANGANESE	mg/kg	NA	NA	NA	1750 J	1250 J	1690 J	432 J
7471B	MERCURY	mg/kg	NA	NA	NA	13	5.75	2.5	1.96
6010B	NICKEL	mg/kg	NA	NA	NA	155	133	491	137
6010B	POTASSIUM	mg/kg	NA	NA	NA	579 U	499 U	528 U	471 U
6010B	SELENIUM	mg/kg	NA	NA	NA	1.73	1.62	6.2	1.09
6010B	SILVER	mg/kg	NA	NA	NA	0.763	2.37	1.14	1.44
6010B	SODIUM	mg/kg	NA	NA	NA	579 U	499 U	528 U	471 U
6020A	THALLIUM	mg/kg	NA	NA	NA	0.227 U	0.209 U	0.215 U	0.182 U
6010B	VANADIUM	mg/kg	NA	NA	NA	29 U	24.9 U	26.4 U	23.5 U
6010B	ZINC	mg/kg	NA	NA	NA	2710	2860	2790	6980
8081	4,4'-DDD	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	4,4'-DDE	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	4,4'-DDT	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ALDRIN	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ALPHA-BHC	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	BETA-BHC	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	CHLORDANE	µg/kg	NA	NA	NA	1050 UJ	940 U	949 UJ	893 UJ
8081	DELTA-BHC	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	DIELDRIN	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ENDRIN	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	113 J	94 U	94.9 UJ	89.3 UJ
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	HEPTACHLOR	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	105 UJ	94 U	94.9 UJ	89.3 UJ

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-16	PREC-SA1C-17	PREC-SA1C-18	PREC-SA1C-COMP-01	PREC-SA1C-COMP-02	PREC-SA1C-COMP-03	PREC-SA1C-COMP-04
		Field Sample ID	PREC-SA1C-16-040113	PREC-SA1C-17-040113	PREC-SA1C-18-040113	PREC-SA1C-COMPOSITE-01-040113	PREC-SA1C-COMPOSITE-02-040113	PREC-SA1C-COMPOSITE-03-040113	PREC-SA1C-COMPOSITE-04-040113
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	KEPONE, PEST	µg/kg	NA	NA	NA	2040 UJ	1820 U	1840 UJ	1730 UJ
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	204 UJ	182 U	184 UJ	173 UJ
8081	TOXAPHENE	µg/kg	NA	NA	NA	4130 UJ	3700 U	3740 UJ	3520 UJ
8082	AROCLOR 1016	mg/kg	0.36 U	3.62 U	3.73 U	0.814 UJ	0.365 U	0.368 UJ	0.694 UJ
8082	AROCLOR 1221	mg/kg	0.36 U	3.62 U	3.73 U	0.814 UJ	0.365 U	0.368 UJ	0.694 UJ
8082	AROCLOR 1232	mg/kg	0.36 U	3.62 U	3.73 U	0.814 UJ	0.365 U	0.368 UJ	0.694 UJ
8082	AROCLOR 1242	mg/kg	1.57	3.62 U	3.73 U	0.814 UJ	0.365 U	0.368 UJ	0.694 UJ
8082	AROCLOR 1248	mg/kg	0.36 U	3.62 U	3.73 U	0.814 UJ	2.38	1.88 J	2.49 J
8082	AROCLOR 1254	mg/kg	4.54	9.14	21.8	6.06 J	0.365 U	0.368 UJ	0.694 UJ
8082	AROCLOR 1260	mg/kg	0.36 U	3.62 U	3.73 U	0.814 UJ	1.61	1.3 J	1.17 J
8082	Total PCBs (Sum of Detections)	mg/kg	6.11	9.14	21.8	6.06	3.99	3.18	3.66
8151A	2,4,5-T	µg/kg	NA	NA	NA	10.3 U	9.13 U	9.25 U	8.79 U
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	10.3 U	9.13 U	9.25 U	8.79 U
8151A	2,4-D	µg/kg	NA	NA	NA	10.3 U	9.13 U	9.25 U	8.79 U
8151A	2,4-DB	µg/kg	NA	NA	NA	10.3 U	9.13 U	25.1	8.79 U
8151A	DALAPON	µg/kg	NA	NA	NA	409 U	363 U	368 U	349 U
8151A	DICAMBA	µg/kg	NA	NA	NA	10.3 U	9.13 U	9.25 U	8.79 U
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	10.3 U	9.13 U	9.25 U	8.79 U
8151A	DINOSEB	µg/kg	NA	NA	NA	124 U	110 U	111 U	106 U
8151A	MCPA	µg/kg	NA	NA	NA	2480 U	2200 U	2230 U	2120 U
8151A	MECOPROP	µg/kg	NA	NA	NA	2480 U	2200 U	2230 U	2120 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	10.3 U	20.3	9.25 U	8.79 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	23.9 U	21.9 U	22.1 U	21.2 U
8260	2-HEXANONE	µg/kg	NA	NA	NA	23.9 U	21.9 U	22.1 U	21.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	23.9 U	21.9 U	22.1 U	21.2 U
8260	ACETONE	µg/kg	NA	NA	NA	23.9 U	21.9 U	22.1 U	21.2 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-16	PREC-SA1C-17	PREC-SA1C-18	PREC-SA1C-COMP-01	PREC-SA1C-COMP-02	PREC-SA1C-COMP-03	PREC-SA1C-COMP-04
		Field Sample ID	PREC-SA1C-16-040113	PREC-SA1C-17-040113	PREC-SA1C-18-040113	PREC-SA1C-COMPOSITE-01-040113	PREC-SA1C-COMPOSITE-02-040113	PREC-SA1C-COMPOSITE-03-040113	PREC-SA1C-COMPOSITE-04-040113
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACROLEIN	µg/kg	NA	NA	NA	119 U	109 U	110 U	106 U
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	119 U	109 U	110 U	106 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8260	BENZENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	BROMOFORM	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CHLOROETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CHLOROFORM	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CHLOROPRENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	IODOMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	M,P-XYLENE	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 UJ	5.31 UJ
8260	O-XYLENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	PROPIONITRILE	µg/kg	NA	NA	NA	23.9 U	21.9 U	22.1 U	21.2 U
8260	STYRENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TOLUENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	VINYL ACETATE	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	5.97 U	5.47 U	5.52 U	5.31 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	11.9 U	10.9 U	11 U	10.6 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-16	PREC-SA1C-17	PREC-SA1C-18	PREC-SA1C-COMP-01	PREC-SA1C-COMP-02	PREC-SA1C-COMP-03	PREC-SA1C-COMP-04
		Field Sample ID	PREC-SA1C-16-040113	PREC-SA1C-17-040113	PREC-SA1C-18-040113	PREC-SA1C-COMPOSITE-01-040113	PREC-SA1C-COMPOSITE-02-040113	PREC-SA1C-COMPOSITE-03-040113	PREC-SA1C-COMPOSITE-04-040113
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	9840 U	8930 U	8970 U	33900 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	4060 U	3680 U	3700 U	14000 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	9840 U	8930 U	8970 U	33900 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	235	132	265	237
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	2-NITROANILINE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	2-PICOLINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	2460 U	2230 U	2240 U	8480 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	3-NITROANILINE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	4-NITROANILINE	µg/kg	NA	NA	NA	1230 U	1120 U	1120 U	4240 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	73.2 J	88.5 J	183 J	141 UJ
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	129	60.5	88.6	141 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-16	PREC-SA1C-17	PREC-SA1C-18	PREC-SA1C-COMP-01	PREC-SA1C-COMP-02	PREC-SA1C-COMP-03	PREC-SA1C-COMP-04
		Field Sample ID	PREC-SA1C-16-040113	PREC-SA1C-17-040113	PREC-SA1C-18-040113	PREC-SA1C-COMPOSITE-01-040113	PREC-SA1C-COMPOSITE-02-040113	PREC-SA1C-COMPOSITE-03-040113	PREC-SA1C-COMPOSITE-04-040113
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	ACETOPHENONE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	ANILINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	ANTHRACENE	µg/kg	NA	NA	NA	203	286	531	141 U
8270	BENZIDINE	µg/kg	NA	NA	NA	4060 U	3680 U	3700 U	14000 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	875	1230	1720	731
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	891	1130	1660	736
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	1230	1680	2700	1150
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	728	1060	1390	844
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	532	663	863	395
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	2730	3710	3680	1390
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	2400	402	1790	1110
8270	CARBAZOLE	µg/kg	NA	NA	NA	307 U	279 U	287	1060 U
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	CHRYSENE	µg/kg	NA	NA	NA	880	1320	1900	859
8270	DIALLATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	151	210	313	141 U
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	DIMETHOATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	307 U	279 U	391	1060 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	DISULFOTON	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	FAMPHUR	µg/kg	NA	NA	NA	20300 U	18400 U	18500 U	69900 U
8270	FLUORANTHENE	µg/kg	NA	NA	NA	1320	2280	3380	1480
8270	FLUORENE	µg/kg	NA	NA	NA	83.5	83.7	186	141 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	41 U	37.2 U	37.4 U	141 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	585	848	1170	592
8270	ISODRIN	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	ISOPHORONE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	ISOSAFROLE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction	Pre-Construction
		Location ID	PREC-SA1C-16	PREC-SA1C-17	PREC-SA1C-18	PREC-SA1C-COMP-01	PREC-SA1C-COMP-02	PREC-SA1C-COMP-03	PREC-SA1C-COMP-04
		Field Sample ID	PREC-SA1C-16-040113	PREC-SA1C-17-040113	PREC-SA1C-18-040113	PREC-SA1C-COMPOSITE-01-040113	PREC-SA1C-COMPOSITE-02-040113	PREC-SA1C-COMPOSITE-03-040113	PREC-SA1C-COMPOSITE-04-040113
		Sampling Date	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013	4/1/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	METHAPYRILENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	METHYL PARATHION	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	424	224	306	240
8270	NITROBENZENE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	PARATHION	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	922 U	837 U	841 U	3180 U
8270	PHENACETIN	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	PHENANTHRENE	µg/kg	NA	NA	NA	783	1050	2130	919
8270	PHENOL	µg/kg	NA	NA	NA	307 U	279 U	280 U	1060 U
8270	PHORATE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	PRONAMIDE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	PYRENE	µg/kg	NA	NA	NA	1490	2120	3160	1540
8270	PYRIDINE	µg/kg	NA	NA	NA	615 U	558 U	561 U	2120 U
8270	SAFROLE	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	SULFOTEPP	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U
8270	THIONAZIN	µg/kg	NA	NA	NA	2030 U	1840 U	1850 U	6990 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound



Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C
		Location Type	Pre-Construction
		Location ID	PREC-SA1C-COMP-05
		Field Sample ID	PREC-SA1C-
		Sampling Date	COMPOSITE-05-040113
		Depth Interval (inches bss)	4/1/2013
Analytical Method	Chemical Name	NA	
		Unit	
6010B	ALUMINUM	mg/kg	5830
6020A	ANTIMONY	mg/kg	5.84 J
6010B	ARSENIC	mg/kg	19.3
6010B	BARIUM	mg/kg	456
6010B	BERYLLIUM	mg/kg	3.07
6010B	CADMIUM	mg/kg	19.2
6010B	CALCIUM	mg/kg	22200
6010B	CHROMIUM	mg/kg	232
6010B	COBALT	mg/kg	13.6
6020A	COPPER	mg/kg	1110 J
6010B	IRON	mg/kg	135000
6010B	LEAD	mg/kg	2910
6010B	MAGNESIUM	mg/kg	6980
6020A	MANGANESE	mg/kg	1600 J
7471B	MERCURY	mg/kg	4.2
6010B	NICKEL	mg/kg	275
6010B	POTASSIUM	mg/kg	509 U
6010B	SELENIUM	mg/kg	1.82
6010B	SILVER	mg/kg	1.3
6010B	SODIUM	mg/kg	509 U
6020A	THALLIUM	mg/kg	0.207 U
6010B	VANADIUM	mg/kg	25.4 U
6010B	ZINC	mg/kg	3070
8081	4,4'-DDD	µg/kg	95.5 UJ
8081	4,4'-DDE	µg/kg	128 J
8081	4,4'-DDT	µg/kg	95.5 UJ
8081	ALDRIN	µg/kg	95.5 UJ
8081	ALPHA-BHC	µg/kg	95.5 UJ
8081	ALPHA-CHLORDANE	µg/kg	95.5 UJ
8081	BETA-BHC	µg/kg	95.5 UJ
8081	CHLORDANE	µg/kg	955 UJ
8081	DELTA-BHC	µg/kg	95.5 UJ
8081	DIELDRIN	µg/kg	95.5 UJ
8081	ENDOSULFAN I	µg/kg	95.5 UJ
8081	ENDOSULFAN II	µg/kg	95.5 UJ
8081	ENDOSULFAN SULFATE	µg/kg	95.5 UJ
8081	ENDRIN	µg/kg	95.5 UJ
8081	ENDRIN ALDEHYDE	µg/kg	272 J
8081	ENDRIN KETONE	µg/kg	95.5 UJ
8081	GAMMA-BHC (LINDANE)	µg/kg	95.5 UJ
8081	GAMMA-CHLORDANE	µg/kg	95.5 UJ
8081	HEPTACHLOR	µg/kg	95.5 UJ
8081	HEPTACHLOR EPOXIDE	µg/kg	95.5 UJ

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C
		Location Type	Pre-Construction
		Location ID	PREC-SA1C-COMP-05
		Field Sample ID	PREC-SA1C-
		Sampling Date	COMPOSITE-05-040113
		Depth Interval (inches bss)	4/1/2013
		NA	
Analytical Method	Chemical Name	Unit	
8081	KEPONE, PEST	µg/kg	1850 UJ
8081	METHOXYCHLOR	µg/kg	185 UJ
8081	TOXAPHENE	µg/kg	3760 UJ
8082	AROCLOR 1016	mg/kg	3.71 UJ
8082	AROCLOR 1221	mg/kg	3.71 UJ
8082	AROCLOR 1232	mg/kg	3.71 UJ
8082	AROCLOR 1242	mg/kg	3.71 UJ
8082	AROCLOR 1248	mg/kg	3.71 UJ
8082	AROCLOR 1254	mg/kg	19.6 J
8082	AROCLOR 1260	mg/kg	3.71 UJ
8082	Total PCBs (Sum of Detections)	mg/kg	19.6
8151A	2,4,5-T	µg/kg	9.12 U
8151A	2,4,5-TP (SILVEX)	µg/kg	9.12 U
8151A	2,4-D	µg/kg	9.12 U
8151A	2,4-DB	µg/kg	22.6
8151A	DALAPON	µg/kg	363 U
8151A	DICAMBA	µg/kg	9.12 U
8151A	DICHLOROPROP	µg/kg	9.12 U
8151A	DINOSEB	µg/kg	110 U
8151A	MCPA	µg/kg	2200 U
8151A	MECOPROP	µg/kg	2200 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	9.12 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	5.33 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	5.33 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	5.33 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	5.33 U
8260	1,1-DICHLOROETHANE	µg/kg	5.33 U
8260	1,1-DICHLOROETHENE	µg/kg	5.33 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	5.33 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	5.33 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	10.7 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	5.33 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	5.33 U
8260	1,2-DICHLOROETHANE	µg/kg	5.33 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	10.7 U
8260	1,2-DICHLOROPROPANE	µg/kg	5.33 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	5.33 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	10.7 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	5.33 U
8260	2-BUTANONE (MEK)	µg/kg	21.3 U
8260	2-HEXANONE	µg/kg	21.3 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	21.3 U
8260	ACETONE	µg/kg	21.3 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C
		Location Type	Pre-Construction
		Location ID	PREC-SA1C-COMP-05
		Field Sample ID	PREC-SA1C-
		Sampling Date	COMPOSITE-05-040113
		Depth Interval (inches bss)	4/1/2013
Analytical Method	Chemical Name	NA	
		Unit	
8260	ACROLEIN	µg/kg	107 U
8260	ACRYLONITRILE	µg/kg	107 U
8260	ALLYL CHLORIDE	µg/kg	10.7 U
8260	BENZENE	µg/kg	5.33 U
8260	BROMODICHLOROMETHANE	µg/kg	5.33 U
8260	BROMOFORM	µg/kg	5.33 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	5.33 U
8260	CARBON DISULFIDE	µg/kg	5.33 U
8260	CARBON TETRACHLORIDE	µg/kg	5.33 U
8260	CHLOROBENZENE	µg/kg	5.33 U
8260	CHLORODIBROMOMETHANE	µg/kg	5.33 U
8260	CHLOROETHANE	µg/kg	5.33 U
8260	CHLOROFORM	µg/kg	5.33 U
8260	CHLOROMETHANE	µg/kg	5.33 U
8260	CHLOROPRENE	µg/kg	5.33 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	5.33 U
8260	DIBROMOMETHANE	µg/kg	5.33 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	5.33 U
8260	ETHYL METHACRYLATE	µg/kg	5.33 U
8260	ETHYLBENZENE	µg/kg	5.33 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	5.33 U
8260	IODOMETHANE	µg/kg	5.33 U
8260	M,P-XYLENE	µg/kg	10.7 U
8260	METHACRYLONITRILE	µg/kg	5.33 U
8260	METHYL METHACRYLATE	µg/kg	5.33 U
8260	METHYLENE CHLORIDE	µg/kg	5.33 U
8260	O-XYLENE	µg/kg	5.33 U
8260	PROPIONITRILE	µg/kg	21.3 U
8260	STYRENE	µg/kg	5.33 U
8260	TETRACHLOROETHENE	µg/kg	5.33 U
8260	TOLUENE	µg/kg	5.33 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	5.33 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	5.33 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	5.33 U
8260	TRICHLOROETHENE	µg/kg	5.33 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	5.33 U
8260	VINYL ACETATE	µg/kg	10.7 U
8260	VINYL CHLORIDE	µg/kg	5.33 U
8260	XYLENE (TOTAL)	µg/kg	10.7 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	1110 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	555 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	555 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C
		Location Type	Pre-Construction
		Location ID	PREC-SA1C-COMP-05
		Field Sample ID	PREC-SA1C-
		Sampling Date	COMPOSITE-05-040113
		Depth Interval (inches bss)	4/1/2013
		NA	
Analytical Method	Chemical Name	Unit	
8270	1,3,5-TRINITROBENZENE	µg/kg	17800 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	555 U
8270	1,3-DINITROBENZENE	µg/kg	3670 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	555 U
8270	1,4-NAPHTHOQUINONE	µg/kg	3670 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	7330 U
8270	1-NAPHTHYLAMINE	µg/kg	3670 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	17800 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	1670 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	1670 U
8270	2,4-DICHLOROPHENOL	µg/kg	1670 U
8270	2,4-DIMETHYLPHENOL	µg/kg	1670 U
8270	2,4-DINITROPHENOL	µg/kg	3670 U
8270	2,4-DINITROTOLUENE	µg/kg	2220 U
8270	2,6-DICHLOROPHENOL	µg/kg	2220 U
8270	2,6-DINITROTOLUENE	µg/kg	2220 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	3670 U
8270	2-CHLORONAPHTHALENE	µg/kg	555 U
8270	2-CHLOROPHENOL	µg/kg	555 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	185
8270	2-METHYLPHENOL	µg/kg	2220 U
8270	2-NAPHTHYLAMINE	µg/kg	2220 U
8270	2-NITROANILINE	µg/kg	2220 U
8270	2-NITROPHENOL	µg/kg	555 U
8270	2-PICOLINE	µg/kg	3670 U
8270	3&4-METHYLPHENOL	µg/kg	4440 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	1110 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	3670 U
8270	3-METHYLCHOLANTHRENE	µg/kg	2220 U
8270	3-NITROANILINE	µg/kg	2220 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	1670 U
8270	4-AMINOBIHENYL	µg/kg	3670 U
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	555 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	1670 U
8270	4-CHLOROANILINE	µg/kg	1670 U
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	555 U
8270	4-NITROANILINE	µg/kg	2220 U
8270	4-NITROPHENOL, SVOC	µg/kg	3670 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	3670 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	3670 U
8270	ACENAPHTHENE	µg/kg	74.1 UJ
8270	ACENAPHTHYLENE	µg/kg	74.1 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C
		Location Type	Pre-Construction
		Location ID	PREC-SA1C-COMP-05
		Field Sample ID	PREC-SA1C-
		Sampling Date	COMPOSITE-05-040113
		Depth Interval (inches bss)	4/1/2013
Analytical Method	Chemical Name	NA	
		Unit	
8270	ACETOPHENONE	µg/kg	1110 U
8270	ANILINE	µg/kg	3670 U
8270	ANTHRACENE	µg/kg	160
8270	BENZIDINE	µg/kg	7330 U
8270	BENZO(A)ANTHRACENE	µg/kg	852
8270	BENZO[A]PYRENE	µg/kg	739
8270	BENZO[B]FLUORANTHENE	µg/kg	1150
8270	BENZO[G,H,I]PERYLENE	µg/kg	750
8270	BENZO[K]FLUORANTHENE	µg/kg	381
8270	BENZYL ALCOHOL	µg/kg	3670 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	1110 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	1110 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	1110 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	6600
8270	BUTYL BENZYL PHTHALATE	µg/kg	753
8270	CARBAZOLE	µg/kg	555 U
8270	CHLOROBENZILATE	µg/kg	3670 U
8270	CHRYSENE	µg/kg	857
8270	DIALLATE	µg/kg	3670 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	145
8270	DIBENZOFURAN	µg/kg	555 U
8270	DIETHYL PHTHALATE	µg/kg	555 U
8270	DIMETHOATE	µg/kg	3670 U
8270	DIMETHYL PHTHALATE	µg/kg	555 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	3670 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	555 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	555 U
8270	DIPHENYLAMINE	µg/kg	1110 U
8270	DISULFOTON	µg/kg	3670 U
8270	ETHYL METHANESULFONATE	µg/kg	3670 U
8270	FAMPHUR	µg/kg	36700 U
8270	FLUORANTHENE	µg/kg	1590
8270	FLUORENE	µg/kg	74.1 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	74.1 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	555 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	3670 U
8270	HEXACHLOROETHANE	µg/kg	555 U
8270	HEXACHLOROPROPENE	µg/kg	3670 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	566
8270	ISODRIN	µg/kg	3670 U
8270	ISOPHORONE	µg/kg	555 U
8270	ISOSAFROLE	µg/kg	3670 U

Table H-2  
SA1-C and SA1-B Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C
		Location Type	Pre-Construction
		Location ID	PREC-SA1C-COMP-05
		Field Sample ID	PREC-SA1C-
		Sampling Date	COMPOSITE-05-040113
		Depth Interval (inches bss)	4/1/2013
Analytical Method	Chemical Name	NA	
		Unit	
8270	METHAPYRILENE	µg/kg	3670 U
8270	METHYL METHANESULFONATE	µg/kg	3670 U
8270	METHYL PARATHION	µg/kg	3670 U
8270	NAPHTHALENE, SVOC	µg/kg	213
8270	NITROBENZENE	µg/kg	1110 U
8270	N-NITROSODIETHYLAMINE	µg/kg	1110 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	1110 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	1110 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	555 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	555 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	1110 U
8270	N-NITROSOMORPHOLINE	µg/kg	3670 U
8270	N-NITROSOPIPERIDINE	µg/kg	3670 U
8270	N-NITROSOPYRROLIDINE	µg/kg	555 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	3670 U
8270	O-TOLUIDINE	µg/kg	3670 U
8270	PARATHION	µg/kg	3670 U
8270	PENTACHLOROBENZENE	µg/kg	1110 U
8270	PENTACHLORONITROBENZENE	µg/kg	3670 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	1670 U
8270	PHENACETIN	µg/kg	3670 U
8270	PHENANTHRENE	µg/kg	660
8270	PHENOL	µg/kg	555 U
8270	PHORATE	µg/kg	3670 U
8270	PRONAMIDE	µg/kg	3670 U
8270	PYRENE	µg/kg	1460
8270	PYRIDINE	µg/kg	1110 U
8270	SAFROLE	µg/kg	3670 U
8270	SULFOTEPP	µg/kg	3670 U
8270	THIONAZIN	µg/kg	3670 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound



**Table H-3**  
**SA1-C and SA1-B Confirmation, Verification, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Confirmation	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA1B-01	CSD-SA1C-1	CSD-SA1C-2	CSD-SA1C-3
		Field Sample ID	CSD-SA1B-01-073113	CSD-SA1C-1-071513	CSD-SA1C-02-071613	CSD-SA1C-03-071713
		Sampling Date	7/31/2013	7/15/2013	7/16/2013	7/17/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.058 U	0.048 U	0.059 U	0.047 U
8082	AROCLOR 1221	mg/kg	0.058 U	0.048 U	0.059 U	0.047 U
8082	AROCLOR 1232	mg/kg	0.058 U	0.048 U	0.059 U	0.047 U
8082	AROCLOR 1242	mg/kg	0.058 U	0.048 U	0.059 U	0.047 U
8082	AROCLOR 1248	mg/kg	1.4	0.78	0.58	0.27
8082	AROCLOR 1254	mg/kg	0.3	0.36	0.21	0.071
8082	AROCLOR 1260	mg/kg	0.058 U	0.048 U	0.059 U	0.047 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.7	1.14	0.79	0.341

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Confirmation	Confirmation	Node	Node
		Location ID	CSD-SA1C-4	CSD-SA1C-05	NSD-SA1C-05-01	NSD-SA1C-05-02
		Field Sample ID	CSD-SA1C-04-071713	CSD-SA1C-05-072513	NSD-SA1C-05-01-072513	NSD-SA1C-05-02-072513
		Sampling Date	7/17/2013	7/25/2013	7/25/2013	7/25/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.046 U	0.055 U	0.054 U	0.053 U
8082	AROCLOR 1221	mg/kg	0.046 U	0.055 U	0.054 U	0.053 U
8082	AROCLOR 1232	mg/kg	0.046 U	0.055 U	0.054 U	0.053 U
8082	AROCLOR 1242	mg/kg	0.046 U	0.055 U	0.054 U	0.053 U
8082	AROCLOR 1248	mg/kg	0.046 U	0.4	0.36	0.2
8082	AROCLOR 1254	mg/kg	0.046 U	0.13	0.12	0.097
8082	AROCLOR 1260	mg/kg	0.046 U	0.055 U	0.054 U	0.053 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.53	0.48	0.297

**Table H-3**  
**SA1-C and SA1-B Confirmation, Verification, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Node	Node	Node	Node
		Location ID	NSD-SA1C-05-03	NSD-SA1C-05-04	NSD-SA1C-05-05	NSD-SA1C-05-06
		Field Sample ID	NSD-SA1C-05-03-072513	NSD-SA1C-05-04-072513	NSD-SA1C-05-05-072513	NSD-SA1C-05-06-072513
		Sampling Date	7/25/2013	7/25/2013	7/25/2013	7/25/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8082	AROCLOR 1016	mg/kg	0.051 UJ	0.067 U	0.06 U	0.072 UJ
8082	AROCLOR 1221	mg/kg	0.051 UJ	0.067 U	0.06 U	0.072 UJ
8082	AROCLOR 1232	mg/kg	0.051 UJ	0.067 U	0.06 U	0.072 UJ
8082	AROCLOR 1242	mg/kg	0.051 UJ	0.067 U	0.06 U	0.072 UJ
8082	AROCLOR 1248	mg/kg	0.34 J	0.99	1.4	0.13 J
8082	AROCLOR 1254	mg/kg	0.44 J	0.31	0.39	0.072 UJ
8082	AROCLOR 1260	mg/kg	0.051 UJ	0.067 U	0.06 U	0.072 UJ
8082	Total PCBs (Sum of Detections)	mg/kg	0.78	1.3	1.79	0.13

		Location Description	Slope Area 1C	Slope Area 1C
		Location Type	Verification	Verification
		Location ID	VER-SA1C-01	VER-SA1C-03
		Field Sample ID	VER-SA1C-01(36")-071513	VER-SA1C-03(36")-071613
		Sampling Date	7/15/2013	7/16/2013
		Depth Interval (inches bss)	0-36	0- 36
Analytical Method	Chemical Name	Unit		
8082	AROCLOR 1016	mg/kg	0.057 U	0.051 U
8082	AROCLOR 1221	mg/kg	0.057 U	0.051 U
8082	AROCLOR 1232	mg/kg	0.057 U	0.051 U
8082	AROCLOR 1242	mg/kg	0.057 U	0.051 U
8082	AROCLOR 1248	mg/kg	1.4	0.29
8082	AROCLOR 1254	mg/kg	0.36	0.068
8082	AROCLOR 1260	mg/kg	0.057 U	0.051 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.76	0.358

Notes:

bss = Below sediment surface

ID = Identification

NA = Not applicable

mg/kg = Milligram per

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1B-01	PSTC-SA1B-COMP-01	PSTC-SA1C-01	PSTC-SA1C-01	PSTC-SA1C-02	PSTC-SA1C-03	PSTC-SA1C-04	PSTC-SA1C-05
		Field Sample ID	PSTC-SA1B-01-0819113	PSTC-SA1B-COMPOSITE-01-081913	PSTC-SA1C-01-082013	PSTC-SA1C-01-082013-DP	PSTC-SA1C-02-082013	PSTC-SA1C-03-082013	PSTC-SA1C-04-082013	PSTC-SA1C-05-082013
		Sampling Date	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
6010B	ALUMINUM	mg/kg	NA	4330	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	19.3	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	137	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	0.511 U	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	5.8	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	25100	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	14.9	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	11.4	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	16500	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	282	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	7940	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	18.7	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	516	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	0.906	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	0.511 U	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	511 U	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	12.7	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	293	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	2.95	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	95.5	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	361	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	0.409 U	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	0.528	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	36.8 UJ	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	368 U	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	36.8 UJ	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	36.8 U	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1B-01	PSTC-SA1B-COMP-01	PSTC-SA1C-01	PSTC-SA1C-01	PSTC-SA1C-02	PSTC-SA1C-03	PSTC-SA1C-04	PSTC-SA1C-05
		Field Sample ID	PSTC-SA1B-01-0819113	PSTC-SA1B-COMPOSITE-01-081913	PSTC-SA1C-01-082013	PSTC-SA1C-01-082013-DP	PSTC-SA1C-02-082013	PSTC-SA1C-03-082013	PSTC-SA1C-04-082013	PSTC-SA1C-05-082013
		Sampling Date	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8081	METHOXYCHLOR	µg/kg	NA	71.5 UJ	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	1450 U	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	µg/kg	0.0358 U	NA	37.1 U	3400 UJ	339 UJ	339 UJ	338 UJ	1670 UJ
8082	AROCLOR 1221	mg/kg	0.0358 U	NA	37.1 U	3400 UJ	339 UJ	339 UJ	338 UJ	1670 UJ
8082	AROCLOR 1232	mg/kg	0.0358 U	NA	37.1 U	3400 UJ	339 UJ	339 UJ	338 UJ	1670 UJ
8082	AROCLOR 1242	mg/kg	0.0358 U	NA	37.1 U	3400 UJ	339 UJ	339 UJ	338 UJ	2200 J
8082	AROCLOR 1248	mg/kg	0.0358 U	NA	37.1 U	3400 UJ	339 UJ	339 UJ	338 UJ	1670 UJ
8082	AROCLOR 1254	mg/kg	0.0358 U	NA	115 J	8730	584 J	452 J	338 UJ	1670 UJ
8082	AROCLOR 1260	mg/kg	0.0498	NA	37.1 U	3400 UJ	339 UJ	339 UJ	397 J	1670 UJ
8082	Total PCBs (Sum of Detections)	mg/kg	0.0498	NA	115	8730	584	452	397	2200
8151A	2,4,5-T	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	353 U	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	107 U	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	2140 U	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	2140 U	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	8.89 U	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	10.4 U	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	10.4 U	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	10.4 U	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	20.9 U	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	20.9 U	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	20.9 U	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	20.9 U	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	104 UJ	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1B-01	PSTC-SA1B-COMP-01	PSTC-SA1C-01	PSTC-SA1C-01	PSTC-SA1C-02	PSTC-SA1C-03	PSTC-SA1C-04	PSTC-SA1C-05
		Field Sample ID	PSTC-SA1B-01-0819113	PSTC-SA1B-COMPOSITE-01-081913	PSTC-SA1C-01-082013	PSTC-SA1C-01-082013-DP	PSTC-SA1C-02-082013	PSTC-SA1C-03-082013	PSTC-SA1C-04-082013	PSTC-SA1C-05-082013
		Sampling Date	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8260	ACRYLONITRILE	µg/kg	NA	104 U	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	10.4 U	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	10.4 U	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	20.9 U	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	10.4 UJ	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	5.22 U	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	10.4 U	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	8660 U	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1B-01	PSTC-SA1B-COMP-01	PSTC-SA1C-01	PSTC-SA1C-01	PSTC-SA1C-02	PSTC-SA1C-03	PSTC-SA1C-04	PSTC-SA1C-05
		Field Sample ID	PSTC-SA1B-01-0819113	PSTC-SA1B-COMPOSITE-01-081913	PSTC-SA1C-01-082013	PSTC-SA1C-01-082013-DP	PSTC-SA1C-02-082013	PSTC-SA1C-03-082013	PSTC-SA1C-04-082013	PSTC-SA1C-05-082013
		Sampling Date	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	1,3-DINITROBENZENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	3570 U	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	8660 U	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	389	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	2160 U	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIHENYL	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	1080 U	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	131	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	340	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	584	NA	NA	NA	NA	NA	NA



Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1B-01	PSTC-SA1B-COMP-01	PSTC-SA1C-01	PSTC-SA1C-01	PSTC-SA1C-02	PSTC-SA1C-03	PSTC-SA1C-04	PSTC-SA1C-05
		Field Sample ID	PSTC-SA1B-01-0819113	PSTC-SA1B-COMPOSITE-01-081913	PSTC-SA1C-01-082013	PSTC-SA1C-01-082013-DP	PSTC-SA1C-02-082013	PSTC-SA1C-03-082013	PSTC-SA1C-04-082013	PSTC-SA1C-05-082013
		Sampling Date	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	BENZIDINE	µg/kg	NA	3570 U	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	2600	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	2290	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	3810	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	1110	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	1370	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	379 U	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	379 U	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	333	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	2820	NA	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	36.1 U	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	379 U	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	379 U	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	600	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	379 U	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	17900 U	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	5030	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	200	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	36.1 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	1050	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	317	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1B	Slope Area 1B	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1B-01	PSTC-SA1B-COMP-01	PSTC-SA1C-01	PSTC-SA1C-01	PSTC-SA1C-02	PSTC-SA1C-03	PSTC-SA1C-04	PSTC-SA1C-05
		Field Sample ID	PSTC-SA1B-01-0819113	PSTC-SA1B-COMPOSITE-01-081913	PSTC-SA1C-01-082013	PSTC-SA1C-01-082013-DP	PSTC-SA1C-02-082013	PSTC-SA1C-03-082013	PSTC-SA1C-04-082013	PSTC-SA1C-05-082013
		Sampling Date	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8270	NITROBENZENE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	812 U	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	2760	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	271 U	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	4620	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	541 U	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	1790 U	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-06	PSTC-SA1C-07	PSTC-SA1C-08	PSTC-SA1C-09	PSTC-SA1C-10	PSTC-SA1C-11	PSTC-SA1C-12
		Field Sample ID	PSTC-SA1C-06-082013	PSTC-SA1C-07-082013	PSTC-SA1C-08-082013	PSTC-SA1C-09 - 082013	PSTC-SA1C-10-082013	PSTC-SA1C-11-082013	PSTC-SA1C-12-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-06	PSTC-SA1C-07	PSTC-SA1C-08	PSTC-SA1C-09	PSTC-SA1C-10	PSTC-SA1C-11	PSTC-SA1C-12	PSTC-SA1C-13
		Field Sample ID	PSTC-SA1C-06-082013	PSTC-SA1C-07-082013	PSTC-SA1C-08-082013	PSTC-SA1C-09 - 082013	PSTC-SA1C-10-082013	PSTC-SA1C-11-082013	PSTC-SA1C-12-082013	PSTC-SA1C-13-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit								
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	µg/kg	338 UJ	341 UJ	349 UJ	347 UJ	343 UJ	351 UJ	341 UJ	332 UJ
8082	AROCLOR 1221	mg/kg	338 UJ	341 UJ	349 UJ	347 UJ	343 UJ	351 UJ	341 UJ	332 UJ
8082	AROCLOR 1232	mg/kg	338 UJ	341 UJ	349 UJ	347 UJ	343 UJ	351 UJ	341 UJ	332 UJ
8082	AROCLOR 1242	mg/kg	475 J	341 UJ	349 UJ	1230 J	1040 J	1060 J	866 J	332 UJ
8082	AROCLOR 1248	mg/kg	338 UJ	1210 J	844 J	347 UJ	343 UJ	351 UJ	341 UJ	1690 J
8082	AROCLOR 1254	mg/kg	473 J	341 UJ	349 UJ	2260 J	2390 J	351 UJ	1630 J	332 UJ
8082	AROCLOR 1260	mg/kg	338 UJ	594 J	1680 J	347 UJ	343 UJ	405 J	341 UJ	744 J
8082	Total PCBs (Sum of Detections)	mg/kg	948	1804	2524	3490	3430	1465	2496	2434
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-06	PSTC-SA1C-07	PSTC-SA1C-08	PSTC-SA1C-09	PSTC-SA1C-10	PSTC-SA1C-11	PSTC-SA1C-12
		Field Sample ID	PSTC-SA1C-06-082013	PSTC-SA1C-07-082013	PSTC-SA1C-08-082013	PSTC-SA1C-09 - 082013	PSTC-SA1C-10-082013	PSTC-SA1C-11-082013	PSTC-SA1C-12-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-06	PSTC-SA1C-07	PSTC-SA1C-08	PSTC-SA1C-09	PSTC-SA1C-10	PSTC-SA1C-11	PSTC-SA1C-12
		Field Sample ID	PSTC-SA1C-06-082013	PSTC-SA1C-07-082013	PSTC-SA1C-08-082013	PSTC-SA1C-09 - 082013	PSTC-SA1C-10-082013	PSTC-SA1C-11-082013	PSTC-SA1C-12-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA



Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-06	PSTC-SA1C-07	PSTC-SA1C-08	PSTC-SA1C-09	PSTC-SA1C-10	PSTC-SA1C-11	PSTC-SA1C-12
		Field Sample ID	PSTC-SA1C-06-082013	PSTC-SA1C-07-082013	PSTC-SA1C-08-082013	PSTC-SA1C-09 - 082013	PSTC-SA1C-10-082013	PSTC-SA1C-11-082013	PSTC-SA1C-12-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-06	PSTC-SA1C-07	PSTC-SA1C-08	PSTC-SA1C-09	PSTC-SA1C-10	PSTC-SA1C-11	PSTC-SA1C-12
		Field Sample ID	PSTC-SA1C-06-082013	PSTC-SA1C-07-082013	PSTC-SA1C-08-082013	PSTC-SA1C-09 - 082013	PSTC-SA1C-10-082013	PSTC-SA1C-11-082013	PSTC-SA1C-12-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-14	PSTC-SA1C-15	PSTC-SA1C-16	PSTC-SA1C-17	PSTC-SA1C-17	PSTC-SA1C-18	PSTC-SA1C-COMP-01
		Field Sample ID	PSTC-SA1C-14-082013	PSTC-SA1C-15-082013	PSTC-SA1C-16-082013	PSTC-SA1C-17-082013	PSTC-SA1C-17-082013-DP	PSTC-SA1C-18-082013	PSTC-SA1C-COMPOSITE-01-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	4680
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	18.7
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	164 J
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	0.474 UJ
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	2.14 J
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	77600
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	77.1
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	7.05
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	50500
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	418
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	7500 J
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	57.9 J
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	474 U
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	0.474 UJ
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	0.775
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	474 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	11.9 J
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	755
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA	3.19 J
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA	381
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA	616
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA	0.379 U
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	1.76
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	355 U
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	35.5 U

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-14	PSTC-SA1C-15	PSTC-SA1C-16	PSTC-SA1C-17	PSTC-SA1C-17	PSTC-SA1C-18	PSTC-SA1C-COMP-01
		Field Sample ID	PSTC-SA1C-14-082013	PSTC-SA1C-15-082013	PSTC-SA1C-16-082013	PSTC-SA1C-17-082013	PSTC-SA1C-17-082013-DP	PSTC-SA1C-18-082013	PSTC-SA1C-COMPOSITE-01-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	69 U
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	1400 U
8082	AROCLOR 1016	µg/kg	681 U	682 UJ	1690 UJ	3400 UJ	36.9 U	682 UJ	NA
8082	AROCLOR 1221	mg/kg	681 U	682 UJ	1690 UJ	3400 UJ	36.9 U	682 U	NA
8082	AROCLOR 1232	mg/kg	681 U	682 UJ	1690 UJ	3400 UJ	36.9 U	682 U	NA
8082	AROCLOR 1242	mg/kg	2120 J	682 UJ	1690 UJ	3400 UJ	36.9 U	2490 J	NA
8082	AROCLOR 1248	mg/kg	681 U	682 UJ	1690 UJ	3400 UJ	36.9 U	682 U	NA
8082	AROCLOR 1254	mg/kg	4330 J	9350 J	17400 J	11300 J	205	12700 J	NA
8082	AROCLOR 1260	mg/kg	681 U	682 UJ	1690 UJ	3400 UJ	36.9 U	682 UJ	NA
8082	Total PCBs (Sum of Detections)	mg/kg	6450	9350	17400	11300	205	15190	NA
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	343 U
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	104 U
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	2080 U
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	2080 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	8.63 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	19.1 U
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	19.1 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	19.1 U
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	19.1 U
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	95.7 U

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-14	PSTC-SA1C-15	PSTC-SA1C-16	PSTC-SA1C-17	PSTC-SA1C-17	PSTC-SA1C-18	PSTC-SA1C-COMP-01
		Field Sample ID	PSTC-SA1C-14-082013	PSTC-SA1C-15-082013	PSTC-SA1C-16-082013	PSTC-SA1C-17-082013	PSTC-SA1C-17-082013-DP	PSTC-SA1C-18-082013	PSTC-SA1C-COMPOSITE-01-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	95.7 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	19.1 U
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	4.79 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	9.57 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	8390 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	262 U

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-14	PSTC-SA1C-15	PSTC-SA1C-16	PSTC-SA1C-17	PSTC-SA1C-17	PSTC-SA1C-18	PSTC-SA1C-COMP-01
		Field Sample ID	PSTC-SA1C-14-082013	PSTC-SA1C-15-082013	PSTC-SA1C-16-082013	PSTC-SA1C-17-082013	PSTC-SA1C-17-082013-DP	PSTC-SA1C-18-082013	PSTC-SA1C-COMPOSITE-01-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	3460 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	8390 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	827
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	2100 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	1050 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	129
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	120
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	418



Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-14	PSTC-SA1C-15	PSTC-SA1C-16	PSTC-SA1C-17	PSTC-SA1C-17	PSTC-SA1C-18	PSTC-SA1C-COMP-01
		Field Sample ID	PSTC-SA1C-14-082013	PSTC-SA1C-15-082013	PSTC-SA1C-16-082013	PSTC-SA1C-17-082013	PSTC-SA1C-17-082013-DP	PSTC-SA1C-18-082013	PSTC-SA1C-COMPOSITE-01-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	3460 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	1260
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	1010
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	1620
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	683
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	552
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	1830
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	399
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	1310
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	35 U
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	367 U
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	367 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	367 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	367 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	17300 U
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	2330
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	156
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	35 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	610
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	645

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-14	PSTC-SA1C-15	PSTC-SA1C-16	PSTC-SA1C-17	PSTC-SA1C-17	PSTC-SA1C-18	PSTC-SA1C-COMP-01
		Field Sample ID	PSTC-SA1C-14-082013	PSTC-SA1C-15-082013	PSTC-SA1C-16-082013	PSTC-SA1C-17-082013	PSTC-SA1C-17-082013-DP	PSTC-SA1C-18-082013	PSTC-SA1C-COMPOSITE-01-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	786 U
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	1620
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	262 U
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	2170
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	524 U
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	1730 U
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	1730 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-COMP-02	PSTC-SA1C-COMP-03	PSTC-SA1C-COMP-04	PSTC-SA1C-COMP-05
		Field Sample ID	PSTC-SA1C-COMPOSITE-02-082013	PSTC-SA1C-COMPOSITE-03-082013	PSTC-SA1C-COMPOSITE-04-082013	PSTC-SA1C-COMPOSITE-05-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
6010B	ALUMINUM	mg/kg	4530	4570	5500	5870
6010B	ARSENIC	mg/kg	21.2	20.4	20.9	25.2
6010B	BARIUM	mg/kg	227 J	515 J	479 J	370 J
6010B	BERYLLIUM	mg/kg	0.49 UJ	0.429 UJ	0.476 UJ	0.478 UJ
6010B	CADMIUM	mg/kg	10.5 J	17.5 J	24 J	19.5 J
6010B	CALCIUM	mg/kg	57700	46900	47500	45300
6010B	CHROMIUM	mg/kg	102	137	276	163
6010B	COBALT	mg/kg	8.46	12.9	11.7	13
6010B	IRON	mg/kg	69700	103000	107000	117000
6010B	LEAD	mg/kg	1150	1310	2560	1670
6010B	MAGNESIUM	mg/kg	15400 J	9190 J	13000 J	10500 J
6010B	NICKEL	mg/kg	81.3 J	149 J	173 J	217 J
6010B	POTASSIUM	mg/kg	490 U	455	476 U	478 U
6010B	SELENIUM	mg/kg	2.45 UJ	2.14 UJ	2.38 UJ	2.45 J
6010B	SILVER	mg/kg	0.49 U	0.856	0.933	1.12
6010B	SODIUM	mg/kg	490 U	579	667	478 U
6010B	VANADIUM	mg/kg	24.5 U	21.4 U	23.8 U	23.9 U
6010B	ZINC	mg/kg	1460	2850	3480	3030
6020A	ANTIMONY	mg/kg	5.49 J	17.8 J	15.2 J	17 J
6020A	COPPER	mg/kg	433	826	1400	2380
6020A	MANGANESE	mg/kg	737	1400	1150	1710
6020A	THALLIUM	mg/kg	0.392 U	0.343 U	0.381 U	0.383 U
7471B	MERCURY	mg/kg	2.13 J	1.95	2.99	3.23
8081	4,4'-DDD	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	4,4'-DDE	µg/kg	34.6 UJ	35.6 U	86.5 U	101
8081	4,4'-DDT	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	ALDRIN	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	ALPHA-BHC	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	ALPHA-CHLORDANE	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	BETA-BHC	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	CHLORDANE	µg/kg	346 U	356 U	865 U	893 U
8081	DELTA-BHC	µg/kg	34.6 U	35.6 U	86.5 U	89.3 U
8081	DIELDRIN	µg/kg	34.6 U	35.6 U	86.5 U	89.3 U
8081	ENDOSULFAN I	µg/kg	34.6 U	35.6 U	86.5 U	89.3 U
8081	ENDOSULFAN II	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	ENDOSULFAN SULFATE	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	ENDRIN	µg/kg	34.6 U	35.6 U	86.5 U	89.3 U
8081	ENDRIN ALDEHYDE	µg/kg	34.6 UJ	35.6 U	86.5 U	142
8081	ENDRIN KETONE	µg/kg	34.6 U	35.6 U	86.5 U	89.3 U
8081	GAMMA-BHC (LINDANE)	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	GAMMA-CHLORDANE	µg/kg	34.6 U	35.6 U	86.5 U	89.3 U
8081	HEPTACHLOR	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U
8081	HEPTACHLOR EPOXIDE	µg/kg	34.6 UJ	35.6 U	86.5 U	89.3 U

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-COMP-02	PSTC-SA1C-COMP-03	PSTC-SA1C-COMP-04	PSTC-SA1C-COMP-05
		Field Sample ID	PSTC-SA1C-COMPOSITE-02-082013	PSTC-SA1C-COMPOSITE-03-082013	PSTC-SA1C-COMPOSITE-04-082013	PSTC-SA1C-COMPOSITE-05-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8081	METHOXYCHLOR	µg/kg	67.2 UJ	69 U	168 U	173 U
8081	TOXAPHENE	µg/kg	1360 U	1400 U	3410 U	3520 U
8082	AROCLOR 1016	µg/kg	NA	NA	NA	NA
8082	AROCLOR 1221	mg/kg	NA	NA	NA	NA
8082	AROCLOR 1232	mg/kg	NA	NA	NA	NA
8082	AROCLOR 1242	mg/kg	NA	NA	NA	NA
8082	AROCLOR 1248	mg/kg	NA	NA	NA	NA
8082	AROCLOR 1254	mg/kg	NA	NA	NA	NA
8082	AROCLOR 1260	mg/kg	NA	NA	NA	NA
8082	Total PCBs (Sum of Detections)	mg/kg	NA	NA	NA	NA
8151A	2,4,5-T	µg/kg	8.45 UJ	8.47 U	8.45 U	8.52 U
8151A	2,4,5-TP (SILVEX)	µg/kg	8.45 UJ	8.47 U	8.45 U	8.52 U
8151A	2,4-D	µg/kg	8.45 UJ	8.47 U	8.45 U	8.52 U
8151A	2,4-DB	µg/kg	8.45 UJ	8.47 U	8.45 U	8.52 U
8151A	DALAPON	µg/kg	336 UJ	337 U	336 U	339 U
8151A	DICAMBA	µg/kg	8.45 UJ	8.47 U	8.45 U	8.52 U
8151A	DICHLOROPROP	µg/kg	8.45 UJ	8.47 U	8.45 U	8.52 U
8151A	DINOSEB	µg/kg	102 UJ	102 U	102 U	103 U
8151A	MCPA	µg/kg	2040 UJ	2040 U	2040 U	2050 U
8151A	MECOPROP	µg/kg	2040 UJ	2040 U	2040 U	2050 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	8.45 UJ	9.76	8.45 U	8.52 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,1-DICHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,1-DICHLOROETHENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	9.55 U	10.1 U	9.77 U	9.58 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,2-DICHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	9.55 U	10.1 U	9.77 U	9.58 U
8260	1,2-DICHLOROPROPANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	9.55 U	10.1 U	9.77 U	9.58 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	2-BUTANONE (MEK)	µg/kg	19.1 U	20.2 U	19.5 U	19.2 U
8260	2-HEXANONE	µg/kg	19.1 U	20.2 U	19.5 U	19.2 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	19.1 U	20.2 U	19.5 U	19.2 U
8260	ACETONE	µg/kg	19.1 U	20.2 U	19.5 U	19.2 U
8260	ACROLEIN	µg/kg	95.5 U	101 U	97.7 U	95.8 U

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-COMP-02	PSTC-SA1C-COMP-03	PSTC-SA1C-COMP-04	PSTC-SA1C-COMP-05
		Field Sample ID	PSTC-SA1C-COMPOSITE-02-082013	PSTC-SA1C-COMPOSITE-03-082013	PSTC-SA1C-COMPOSITE-04-082013	PSTC-SA1C-COMPOSITE-05-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8260	ACRYLONITRILE	µg/kg	95.5 U	101 U	97.7 U	95.8 U
8260	ALLYL CHLORIDE	µg/kg	9.55 U	10.1 U	9.77 U	9.58 U
8260	BENZENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	BROMODICHLOROMETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	BROMOFORM	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CARBON DISULFIDE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CARBON TETRACHLORIDE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CHLOROBENZENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CHLORODIBROMOMETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CHLOROETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CHLOROFORM	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CHLROMETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CHLOROPRENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	DIBROMOMETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	ETHYL METHACRYLATE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	ETHYLBENZENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	IODOMETHANE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	M,P-XYLENE	µg/kg	9.55 U	10.1 U	9.77 U	9.58 U
8260	METHACRYLONITRILE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	METHYL METHACRYLATE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	METHYLENE CHLORIDE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	O-XYLENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	PROPIONITRILE	µg/kg	19.1 U	20.2 U	19.5 U	19.2 U
8260	STYRENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TETRACHLOROETHENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TOLUENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TRICHLOROETHENE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	4.77 R	5.05 U	4.88 U	4.79 U
8260	VINYL ACETATE	µg/kg	9.55 UJ	10.1 U	9.77 U	9.58 U
8260	VINYL CHLORIDE	µg/kg	4.77 U	5.05 U	4.88 U	4.79 U
8260	XYLENE (TOTAL)	µg/kg	9.55 U	10.1 U	9.77 U	9.58 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	251 U	520 U	515 U	774 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	251 U	520 U	515 U	774 U
8270	1,3,5-TRINITROBENZENE	µg/kg	8040 U	16600 U	16500 U	24800 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	251 U	520 U	515 U	774 U

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-COMP-02	PSTC-SA1C-COMP-03	PSTC-SA1C-COMP-04	PSTC-SA1C-COMP-05
		Field Sample ID	PSTC-SA1C-COMPOSITE-02-082013	PSTC-SA1C-COMPOSITE-03-082013	PSTC-SA1C-COMPOSITE-04-082013	PSTC-SA1C-COMPOSITE-05-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	1,3-DINITROBENZENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	251 U	520 U	515 U	774 U
8270	1,4-NAPHTHOQUINONE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	3310 U	6860 U	6800 U	10200 U
8270	1-NAPHTHYLAMINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	8040 U	16600 U	16500 U	24800 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	753 U	1560 U	1550 U	2320 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	753 U	1560 U	1550 U	2320 U
8270	2,4-DICHLOROPHENOL	µg/kg	753 U	1560 U	1550 U	2320 U
8270	2,4-DIMETHYLPHENOL	µg/kg	753 U	1560 U	1550 U	2320 U
8270	2,4-DINITROPHENOL	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	2,4-DINITROTOLUENE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	2,6-DICHLOROPHENOL	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	2,6-DINITROTOLUENE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	2-CHLORONAPHTHALENE	µg/kg	251 U	520 U	515 U	774 U
8270	2-CHLOROPHENOL	µg/kg	251 U	520 U	515 U	774 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	143	683	362	1240
8270	2-METHYLPHENOL	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	2-NAPHTHYLAMINE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	2-NITROANILINE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	2-NITROPHENOL	µg/kg	251 U	520 U	515 U	774 U
8270	2-PICOLINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	3&4-METHYLPHENOL	µg/kg	2010 U	4160 U	4120 U	6190 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	502 UJ	1040 U	1030 U	1550 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	3-METHYLCHOLANTHRENE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	3-NITROANILINE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	753 U	1560 U	1550 U	2320 U
8270	4-AMINOBIPHENYL	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	251 U	520 U	515 U	774 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	753 U	1560 U	1550 U	2320 U
8270	4-CHLOROANILINE	µg/kg	753 U	1560 U	1550 U	2320 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	251 U	520 U	515 U	774 U
8270	4-NITROANILINE	µg/kg	1000 U	2080 U	2060 U	3090 U
8270	4-NITROPHENOL, SVOC	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	ACENAPHTHENE	µg/kg	48 J	303	106	103 U
8270	ACENAPHTHYLENE	µg/kg	61.2	124	95.5	197
8270	ACETOPHENONE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	ANILINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	ANTHRACENE	µg/kg	171 J	651	271	250



Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-COMP-02	PSTC-SA1C-COMP-03	PSTC-SA1C-COMP-04	PSTC-SA1C-COMP-05
		Field Sample ID	PSTC-SA1C-COMPOSITE-02-082013	PSTC-SA1C-COMPOSITE-03-082013	PSTC-SA1C-COMPOSITE-04-082013	PSTC-SA1C-COMPOSITE-05-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	BENZIDINE	µg/kg	3310 U	6860 U	6800 U	10200 U
8270	BENZO(A)ANTHRACENE	µg/kg	817 J	2020	1340	874
8270	BENZO[A]PYRENE	µg/kg	820 J	2230	1420	938
8270	BENZO[B]FLUORANTHENE	µg/kg	1320 J	3550	2370	1780
8270	BENZO[G,H,I]PERYLENE	µg/kg	765 J	1420	1110	587
8270	BENZO[K]FLUORANTHENE	µg/kg	392 J	773	581	438
8270	BENZYL ALCOHOL	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	502 U	1040 U	1030 U	1550 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	502 U	1040 U	1030 U	1550 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	548 J	1060	2980	1170
8270	BUTYL BENZYL PHTHALATE	µg/kg	566	728 U	767	1080 U
8270	CARBAZOLE	µg/kg	251 U	520 U	515 U	774 U
8270	CHLOROBENZILATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	CHRYSENE	µg/kg	1010 J	2310	1490	1020
8270	DIALLATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	33.5 U	69.3 U	68.7 U	103 U
8270	DIBENZOFURAN	µg/kg	251 U	520 U	515 U	774 U
8270	DIETHYL PHTHALATE	µg/kg	352 U	728 U	721 U	1080 U
8270	DIMETHOATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	DIMETHYL PHTHALATE	µg/kg	352 U	728 U	721 U	1080 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	352 U	728 U	6350	1080 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	352 U	728 U	721 U	1080 U
8270	DIPHENYLAMINE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	DISULFOTON	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	ETHYL METHANESULFONATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	FAMPHUR	µg/kg	16600 U	34300 U	34000 U	51100 U
8270	FLUORANTHENE	µg/kg	1500 J	4990	2560	1290
8270	FLUORENE	µg/kg	47.1	309	96.9	103 U
8270	HEXACHLOROBENZENE, SVOC	µg/kg	33.5 U	69.3 U	68.7 U	103 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	251 U	520 U	515 U	774 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	1660 UJ	3430 U	3400 U	5110 U
8270	HEXACHLOROETHANE	µg/kg	251 U	520 U	515 U	774 U
8270	HEXACHLOROPROPENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	633 J	1150	1010	518
8270	ISODRIN	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	ISOPHORONE	µg/kg	251 U	520 U	515 U	774 U
8270	ISOSAFROLE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	METHAPYRILENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	METHYL METHANESULFONATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	METHYL PARATHION	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	NAPHTHALENE, SVOC	µg/kg	118	512	287	997

Table H-4  
SA1-C and SA1-B Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1C	Slope Area 1C	Slope Area 1C	Slope Area 1C
		Location Type	Post-construction	Post-construction	Post-construction	Post-construction
		Location ID	PSTC-SA1C-COMP-02	PSTC-SA1C-COMP-03	PSTC-SA1C-COMP-04	PSTC-SA1C-COMP-05
		Field Sample ID	PSTC-SA1C-COMPOSITE-02-082013	PSTC-SA1C-COMPOSITE-03-082013	PSTC-SA1C-COMPOSITE-04-082013	PSTC-SA1C-COMPOSITE-05-082013
		Sampling Date	8/20/2013	8/20/2013	8/20/2013	8/20/2013
		Depth Interval (inches bss)	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit				
8270	NITROBENZENE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	N-NITROSODIETHYLAMINE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	251 U	520 U	515 U	774 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	251 U	520 U	515 U	774 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	N-NITROSOMORPHOLINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	N-NITROSOPIPERIDINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	N-NITROSOPYRROLIDINE	µg/kg	251 U	520 U	515 U	774 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	O-TOLUIDINE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	PARATHION	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	PENTACHLOROBENZENE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	PENTACHLORONITROBENZENE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	753 U	1560 U	1550 U	2320 U
8270	PHENACETIN	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	PHENANTHRENE	µg/kg	715 J	3720	1450	872
8270	PHENOL	µg/kg	251 U	520 U	515 U	774 U
8270	PHORATE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	PRONAMIDE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	PYRENE	µg/kg	1420 J	4490	2380	1280
8270	PYRIDINE	µg/kg	502 U	1040 U	1030 U	1550 U
8270	SAFROLE	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	SULFOTEPP	µg/kg	1660 U	3430 U	3400 U	5110 U
8270	THIONAZIN	µg/kg	1660 U	3430 U	3400 U	5110 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
R= Result rejected  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

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**ATTACHMENT H-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 1  
**Direction:** South  
**Subject:** Staging area preparation

**Date:** 4/15/13  
**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 2  
**Direction:** Southeast  
**Subject:** Staging area preparation

**Date:** 4/15/13  
**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 3  
**Direction:** West  
**Subject:** Installation of discharge pipes

**Date:** 6/18/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 4  
**Direction:** East  
**Subject:** Before excavation

**Date:** 6/18/13  
**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 5

**Direction:** North

**Subject:** Installation of groundwater dewatering system

**Date:** 6/20/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 6

**Direction:** East

**Subject:** Unloading of creek water bypass pumps

**Date:** 6/20/13

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 7

**Direction:** North

**Subject:** Staging area preparation

**Date:** 6/20/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 8

**Direction:** West

**Subject:** Sheet-pile cofferdam at north end

**Date:** 7/16/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 9

**Direction:** South

**Subject:** Bypass pump and fuel tank setup

**Date:** 6/21/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 10

**Direction:** North

**Subject:** Discharge pipe installation

**Date:** 6/21/13

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 11

**Date:** 7/14/13

**Direction:** East

**Photographer:** Dustin Bates

**Subject:** By-pass pumping system suction pipes in trench boxes



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 12

**Date:** 7/16/13

**Direction:** South

**Photographer:** Dustin Bates

**Subject:** Excavation of Grids 1 and 2



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 13

**Direction:** South

**Subject:** Backfilling in Grids 1 through 4

**Date:** 7/18/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 14

**Direction:** South

**Subject:** Backfilling in Grids 1 through 4

**Date:** 7/18/13

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 15  
**Direction:** South  
**Subject:** Excavation of Grid 5 floodplain

**Date:** 7/25/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 16  
**Direction:** South  
**Subject:** Restoration activities

**Date:** 7/26/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 17  
**Direction:** West  
**Subject:** Discharge area north of SA1-B

**Date:** 7/16/13  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B  
**Photograph No.:** 18  
**Direction:** South  
**Subject:** Dewatering of Grid 4 in SA1-B

**Date:** 7/16/13  
**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 19

**Direction:** West

**Subject:** Groundwater dewatering pump setup at SA1-B

**Date:** 7/19/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 20

**Direction:** South

**Subject:** Removal of by-pass pumps

**Date:** 8/12/13

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-C and SA1-B

**Photograph No.:** 21

**Date:** 8/12/13

**Direction:** South

**Photographer:** Dustin Bates

**Subject:** After completion of excavation and restoration of creek channel banks

## **APPENDIX I**

### **SLOPE AREA 1-A REPORT PORTAGE CREEK AREA SITE**

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## **LIST OF ATTACHMENTS**

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- I-A Photographic Documentation

# **1. SLOPE AREA BACKGROUND**

## **1.1 DESCRIPTION**

SA1-A is located in downtown Kalamazoo, Michigan, along Harrison Street (western bank), Rose Veterans Memorial Park (eastern bank), and along East Michigan Avenue between Harrison Street and King Highway (Business I-94). The approximate geographic coordinates are latitude 42.2951° North and longitude -85.5734° West (**Figure I-1**). The excavation area was divided into nine excavation grids that extended north from East Michigan Avenue to the confluence point of Portage Creek and the Kalamazoo River. SA1-A encompasses approximately 23,900 ft<sup>2</sup>, and is surrounded by both light industrial and commercial businesses. Portage Creek flows from south to north (**Figure I-2**).

## **1.2 ACCESS AGREEMENTS**

EPA obtained “Consent For Access To Property” forms from three property owners, providing access to the excavation area. The property owners granted EPA and contractors permission to establish access roads and staging areas, conduct contaminated sediment excavation operations, and restore properties after excavation activities were completed. During Site operations, EPA scheduled weekly meetings with property owners, conducted a walk-through, and provided updates on current and planned activities.

## **1.3 SEQUENCE OF EVENTS**

Excavation preparation and activities included the following steps:

- Development of a Technical Memorandum to define the approach to contaminated sediment excavation
- Collection and PCB analysis of sediment core samples to confirm excavation depths within each excavation grid, as necessary
- Pre-excavation topographic survey to document existing Site conditions
- Pre-sediment removal assessment to document existing Site conditions
- Installation of environmental controls to minimize impact of excavation activities on original Site features
- A presence/absence survey of the surrounding area for the Indiana Bat
- Clearing and grubbing to allow physical access to excavation area



- Collection of pre-construction soil samples from support area
- Construction of a temporary staging area and an access road, as necessary
- Installation and operation of a by-pass pumping system, a sheet pile cofferdam, and a groundwater diversion system to allow for dry excavation conditions
- Excavation of PCB-contaminated soil and sediment
- Transportation and disposal of stabilized sediments
- Collection, analysis, and data validation of confirmation, verification, and node sediment samples obtained from excavation grids
- Removal of all environmental controls, access road, staging area, and pumping systems
- Post-excavation topographic survey to document Site conditions
- Post-sediment removal assessment to document Site conditions
- Collection of post-construction soil samples from support areas
- Development of an area-specific restoration plan in coordination with property owners

After the completion of Site set-up activities (i.e., installation of groundwater diversion system; construction of downstream cofferdam, and installation of environmental controls), ERRS excavated TSCA and non-TSCA PCB-contaminated sediment. Additional information on excavation activities is provided in Section 3.

A total of twenty-four in-stream sediment core samples from nine different locations, thirteen pre-construction soil samples (including one duplicate sample), ten confirmation sediment samples (including one duplicate sample), six verification sediment samples (including one duplicate sample), twelve node sediment samples, four investigative sediment core samples from one location in Grid 8, and fourteen post-construction soil samples were collected prior to, during, and after excavation activities. Additional information is provided for these samples in Section 2.1 and Sections 4.1 - 4.3.

Once excavation and sampling activities were completed, the work area was restored in accordance with the Restoration Plan. Additional information for these activities is provided in Section 5.2.

## **2. PRE-REMOVAL ACTIVITIES**

This section discusses pre-removal sampling activities, pre-removal features assessment, Site setup activities, and environmental controls. **Attachment I-A** provides photographic documentation of selected pre-removal activities.

### **2.1 PRE-REMOVAL SAMPLING ACTIVITIES**

ERRS and START performed pre-excavation sediment sampling on May 2, 2013. A total of twenty-four sediment core samples were collected from nine different locations. These cores were processed and sampled in approximately 12-inch intervals. All analytical data results for the pre-removal sediment samples are presented in **Table I-1**.

The sampling was performed in compliance with the FSP, which provides detailed information on the number of samples, sample collection methods, and sample analyses that were conducted. The intent of this sampling was to confirm vertical extent of contamination, determine if contaminant levels were below TSCA landfill disposal parameters, and finalize sediment excavation depths within each grid. The samples were shipped to ALS Global Laboratory of Holland, Michigan, for PCB analysis. The analytical results verified that sediment contaminant levels for PCBs, in Grids 2, 3, and 6 and in portions of Grids 4 and 5, were above TSCA disposal limits. As a result, sediment from these grids was excavated as TSCA sediment. The analytical results also indicated that sediment contaminant levels for PCBs, in Grids 1, 7, 8, and 9 and in portions of Grids 4 and 5, were below TSCA disposal limits. As a result, sediment from these grids was excavated as non-TSCA sediment.

### **2.2 PRE-REMOVAL FEATURES ASSESSMENT**

EPA recorded photographic and video documentation of the pre-removal features and surrounding areas (i.e., access roads, including East Michigan Avenue and Harrison Street, and Rose Veterans Memorial Park). Fleis and Vandenbrink Engineering Inc. performed a pre-sediment removal assessment of in-place constructed features within and adjacent to the excavation area. A report entitled “Pre-Sediment Removal Structure Feature Assessment Removal Areas SA1-A, SA1-B and SA1-C” (Fleis and Vandenbrink Engineering Inc., May 2013) is available upon request. This assessment was used to determine if any corrective actions or repairs were required once

excavation activities were completed and a post-sediment removal structure feature assessment was conducted.

## **2.3 INDIANA BAT PRESENCE/ABSENCE SURVEY**

Before clearing and grubbing activities began, a subcontractor conducted a presence/absence survey for the federally endangered Indiana Bat (*Myotis sodalis*) on the creek banks surrounding the excavation area. This survey involved a desktop habitat analysis, an on-Site habitat survey, acoustic monitoring sample selection, acoustic system maintenance and calibration, data downloading, and acoustic analysis. The survey was conducted at the recommendation of the U.S. Fish and Wildlife Service (USFWS) because the clearing and grubbing activities were to take place between March 31 and October 15, 2013. During this timeframe, seasonal tree removal restrictions are in place because the Indiana Bat may be present in the area, roosting in certain trees, or foraging for food. On July 17 and 19, 2013, the subcontractor conducted the survey in accordance with the survey guidelines provided by USFWS. On August 5, 2013, EPA submitted the survey report to the U.S. FWS for review and acceptance. USFWS accepted the report on August 9, 2013. After the acceptance of the report by USFWS, the clearing and grubbing activities were able to proceed.

## **2.4 SA1-A SITE SETUP**

### **2.4.1 Removal of Vegetative Cover and Construction of an Access Road**

Subcontractors cleared vegetative cover that restricted excavation operations, including overgrown brush, grass, bushes, and trees. Both the eastern and western banks were cleared to provide access to the excavation area, allow for installation of the groundwater diversion system, and allow for placement of the by-pass pumping system discharge pipelines. Ornamental garden plants located on the western bank and in Rose Veterans Memorial Park were temporarily removed and replanted off Site. After construction activities were completed, these plants were replanted in their original locations. In order to maintain soil stability, clearing and grubbing activities were completed in a manner that protected root masses of trees in the overall work area, with the exception of the eastern bank in Rose Veterans Memorial Park, where the property owner specifically requested the removal of stumps and roots.

The area immediately north of the excavation area was cleared and widened in order to provide for a support area, staging pad, and access road. The access road to the staging area did not require

clearing and grubbing because this road led through the parking lot of an existing building. The access road to the excavation area extended from Harrison Street, through an existing parking lot, and adjacent to the western side of the excavation area. The Kalamazoo River Valley Trail was closed from August to October 2013 to facilitate the staging area operations and access to the excavation area. Additionally, portions of Rose Veterans Memorial Park were closed to the public during the construction activities. The access road and support area were constructed by using 1-inch by 3-inch limestone rock. In accordance with MDOT requirements and specifications, roadway signage was placed to indicate the presence of a truck entrance and a flagger, as needed, on both Harrison Street and East Michigan Avenue.

#### **2.4.2 Pre-Removal and Post-Removal Topographic Surveys**

EPA FIELDS performed a pre-excavation topographic survey of the excavation area on April 29, 2013. The purpose of this survey was to document the pre-excavation topographical conditions of the creek channel and surrounding area, serve as a baseline for determining the contaminated sediment excavation surface area within each grid, and provide guidance during the creek channel stabilization and backfilling activities. All survey data was loaded into RTK-GPS equipment installed on the excavator used during excavation activities. The RTK-GPS equipment ensured that operators were excavating sediment and backfilling each grid to targeted lateral and vertical limits of each grid.

#### **2.4.3 Excavation Area Isolation and Dewatering**

Subcontractors constructed a sheet pile cofferdam to isolate the excavation area and facilitate dewatering of contaminated sediments. An upstream cofferdam (used as the downstream isolation cofferdam for SA1-B and SA1-C excavation area isolation) was already located south of the East Michigan Avenue bridge. The additional (downstream) cofferdam was placed in the north end of SA1-A at the confluence point of Portage Creek and the Kalamazoo River (**Figure I-2**). To further dry out the creek channel, another subcontractor installed a series of groundwater extraction wells along the eastern and western banks of the excavation grids. The setup consisted of 1.5-inch-diameter PVC sipper wells jetted into the banks of the creek on 5-foot centers to an approximate depth of 10 feet below the creek bottom. The sipper wells were connected to a 6-inch-diameter PVC manifold pipe via flexible tubing. The manifold pipe was connected to 6-inch-diameter vacuum pumps that discharged groundwater past the downstream isolation cofferdam. Several

days of pumping were conducted prior to excavation activities to dewater the creek sediments as much as possible. The system operated 24 hours per day until all excavation and backfilling activities were completed.

#### **2.4.4 By-Pass Pumping**

The by-pass pumping system, which was located on the eastern bank of SA1-A next to the upstream cofferdam, consisted of three 18-inch pumps, a 12-inch pump, and an 8-inch back-up pump. Four 18-inch discharge lines ran from the pump system, under the East Michigan Avenue bridge, and along the western edge of Rose Veterans Memorial Park to the Kalamazoo River. A short boardwalk section of the Kalamazoo River Valley Trail was removed to provide access for the discharge lines to the southern bank of the Kalamazoo River. The system captured creek water upstream of the southern (upstream) cofferdam and pumped it past the northern (downstream) cofferdam, discharging onto a rock discharge pad consisting of wire gabion baskets filled with large stones. The gabion baskets dissipated water flow velocity and thus minimized erosion of the creek channel bottom. Pumping operations continued 24 hours per day until all dredging and backfilling activities were completed.

### **2.5 ENVIRONMENTAL CONTROLS**

As pre-construction and excavation activities began, environmental controls were put into place to minimize impact of excavation activities. Many of the environmental controls are specified in the SESC Plan. The environmental controls are summarized below.

- Storm Drain Inlet Protection - Filtration fabric was installed in storm drain inlets potentially impacted by Site operations.
- Construction Entrance/Exit – Site access was established on the north side of SA1-A. The access road consisted of a 6-inch-thick layer of 1-inch by 3-inch rock.
- Dust Control - A water truck applied water for dust control within the staging area and truck entrance/exit, as necessary.
- Tire Wash Station - A portable tire wash station was set up along the western edge of the excavation area. After each truck was loaded, a crew member sprayed off soil from truck tires as the truck passed through the station prior to exiting the site. Wash waters were pumped to a temporary storage tank and hauled to the wastewater treatment plant to maintain suitable storage capacity.
- Paved Surface Management – A power broom was used to perform housekeeping of paved work areas of SA1-A.

- Fuel Station – A 300-gallon temporary fuel tank and two 1,000-gallon temporary fuel tanks with secondary containment were used for the by-pass pumps and heavy equipment. Fire extinguishers and emergency spill control kits were placed near the fuel tanks. The spill kits included drums, oil dry, adsorbent pads, and a boom to address small spills.
- Sediment Curtain - A Type II sediment curtain was placed downstream of the isolation area in the creek channel.
- Silt Fencing - Silt fencing was installed along both sides of the creek to stabilize sediments and to prevent erosion into the creek channel.
- Upstream Debris Curtain - A Type II sediment curtain was placed across the creek channel approximately 50 feet upstream of the by-pass pumping system intake pipes. This curtain, which was cleared daily, removed floating debris and prevented the debris from entering and clogging or blocking the pump intake pipes.
- Rock Discharge Pad - A rock discharge pad was installed, downstream of the isolated area where the discharge lines released the captured water. The rock discharge pad consisted of wire gabion baskets filled with rip-rap stone to dissipate discharge velocity and reduce erosion of the creek bed.
- Turbidity Monitoring Stations - Turbidity monitoring stations were established to monitor the turbidity levels during excavation operations. Real-time turbidity monitoring was performed with stations set 200ft upstream, 200ft downstream, and 300ft downstream of the downstream cofferdam installed at the confluence point of Portage Creek and the Kalamazoo River. All turbidity monitors were installed within the Kalamazoo River. Turbidity monitoring was recorded at 0.5-hour intervals by a programmed data logger at the turbidity stations. Data were transferred to a computer in the command post trailer via a cellular modem.

### **3. EXCAVATION/DISPOSAL ACTIVITIES**

The excavation of contaminated sediments commenced in Grid 1 and continued from south to north through Grid 9. **Attachment I-A** provides photographic documentation of the excavation activities. The table below lists excavation details, including targeted excavation depths.



### SA1-A EXCAVATION DETAILS

<b>Grid</b>	<b>Target Excavation Depth (inches bss)</b>	<b>Final Excavation Depth (inches bss)</b>	<b>Surface Area of Excavated Sediment (ft<sup>2</sup>)</b>	<b>Volume of Excavated Sediment (yd<sup>3</sup>)</b>
1	30	62	2333	446
2	48	64	2939	581
3	42	53	3022	494
4	42	72	3034	674
5	42	49	2518	381
6	30	66	2655	541
7	60	66	1867	380
8	36	77	1757	418
9	30	79	915	223

bss = Below sediment surface

ft<sup>2</sup> = square feet

yd<sup>3</sup> = cubic yards

In order to access contaminated sediments, large timber mats were placed down the middle of the creek channel and a long reach excavator was positioned on the mats. The long reach excavator loaded excavated material directly into crawler carriers that, in turn, transported material to a 20-yd<sup>3</sup> mixing box. A second excavator then mixed the material with a corn cob-based absorbent material, solidifying the sediment prior to loading into tri-axle dump trucks. The dump trucks then hauled the solidified material to the John Street staging pad. This practice avoided any leakage of potentially contaminated liquids from dump trucks onto roadways between the excavation area and the John Street staging pad. Tri-axle dump trucks followed a truck route specified in the Traffic Control Plan.

All contaminated sediments were transported to the John Street staging area, where the tri-axle dump trucks emptied their loads onto a staging pad designed to contain contaminated sediments along with any residual water or run-off from precipitation. Before returning to the excavation support area, tri-axle dump trucks passed through a tire wash station positioned on the staging pad. All potentially contaminated contact water was drained by gravity to a sump located on the staging pad and was subsequently treated by EPA's mobile WWTP staged next to the pad. When sufficient quantities of dried contaminated sediments were accumulated on the staging pad, larger semi-trucks with multiple trailers capable of hauling approximately 50 yd<sup>3</sup> of sediment were loaded out for shipment to approved landfills in accordance with the DMP.

## **4. SAMPLING/MONITORING ACTIVITIES AND RESULTS**

### **4.1 PRE-CONSTRUCTION SOIL SAMPLING**

Prior to the commencement of Site operations, pre-construction soil conditions were characterized by sampling surface soils on creek banks and in support areas. Support areas were divided into 2,500-ft<sup>2</sup> sampling grids for PCB analysis and 10,000-ft<sup>2</sup> sampling areas for analysis of target TCL VOCs and SVOCs, TCL pesticides and herbicides, TAL metals, and PCBs. All analytical data results for the pre-construction soil samples are presented in **Table I-2**.

Eleven soil samples from ten 2,500-ft<sup>2</sup> grids were analyzed for PCBs (including one duplicate sample), and two composite soil samples were collected from the 10,000-ft<sup>2</sup> areas. A six-point composite soil sample was collected from 0 to 6 inches bgs in each 2,500-ft<sup>2</sup> grid. A composite sample of four 2,500-ft<sup>2</sup> grids was generated from the residual sample material obtained from the six-point composite samples, representing 10,000 ft<sup>2</sup>.

### **4.2 CONFIRMATION, VERIFICATION, INVESTIGATIVE, AND NODE SEDIMENT SAMPLING**

During and after excavation of contaminated sediments, START and EPA collected confirmation, verification, and node sediment samples. Verification sampling was conducted in certain grids where visual evidence of paper sludge or heavily stained soils was observed at the original target depths specified in the TM. The purpose of the verification sampling was to confirm whether or not PCB contamination still existed, warranting further excavation to meet cleanup standards. All analytical data results for the confirmation, verification, and node sediment samples are presented in **Table I-3**.

Ten confirmation samples were collected from Grids 1 - 9 at the final excavation depth. Verification samples were collected from Grids 1, 4, 5, 7, and 8 at the original target depths of 30, 42, 42, 60, and 36 inches below the sediment surface, respectively. Verification samples were not collected from all grids for cost and time-efficiency considerations. In the other grids, if visual evidence of paper sludge or heavily stained soils was observed at original target depths, excavation continued beyond the target depth until grids were visibly clean of contaminated sediment.

For confirmation and verification sediment samples, one six-point composite sample was collected from each grid for PCB analysis. Results were evaluated against the performance standard designated for stream sediments, of less than or equal to 10 mg/kg of PCBs, with a performance standard goal of 1 mg/kg.

Node samples were collected from Grids 2 and 3 for statistical analysis of project quality objectives for the overall Superfund Site operable unit. The six discrete node locations used for each node sample coincided with the six node locations used for the composite confirmation samples.

Five investigative sediment core samples were collected from one location in Grid 8.

### **4.3 POST-CONSTRUCTION SOIL SAMPLING**

Post-construction soil samples were collected in the same manner as the pre-construction samples, and used the same grid areas and sample node locations. All analytical data results for post-construction soil samples are presented in **Table I-4**.

Ten individual 2,500-ft<sup>2</sup> grids and three 10,000-ft<sup>2</sup> areas were sampled. One duplicate sample was collected from the 2,500-ft<sup>2</sup> grids. The individual 2,500-ft<sup>2</sup> samples were analyzed for PCBs and were composited in the field by placing the collected soil into a plastic bag and then homogenizing the soil. All of the 10,000-ft<sup>2</sup> composited samples were analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, TCL herbicides, TAL metals, and PCBs. To ensure that work activities did not result in contaminating support areas, results of the post-construction samples were compared to results of pre-construction samples.

### **4.4 AIR MONITORING**

Air monitoring was employed to assess employee and off-Site exposure to dust using an Action Level of 0.25 mg/m<sup>3</sup> for airborne particulates. Real-time monitoring was conducted using a DataRAM particulate monitor positioned downwind of the excavation area during working hours. Wind direction was continually monitored to ensure that the monitor was properly positioned. Monitoring was performed only during active removal operations. **Figure I-3** shows the DataRAM monitoring location.

Any exceedances in the Action Level resulted in immediate corrective action. The use of a water truck to spray water on dry soils and roadways ensured that dust levels remained below the Action Level.

## **5. POST-REMOVAL ACTIVITIES**

### **5.1 POST-REMOVAL FEATURES ASSESSMENT**

Once excavation activities were completed, Fleis and Vandenbrink Engineering Inc. conducted a post-removal features assessment within and adjacent to the excavation area. Details are provided in a report entitled “Post-Sediment Removal Structure Feature Assessment, Removal Area SA1-A” (Fleis and Vandenbrink Engineering Inc., October 2013).

### **5.2 RESTORATION**

Site restoration was completed in three phases in accordance with the project Restoration Plan. **Attachment I-A** provides photographic documentation of selected restoration activities. The first phase consisted of bank stabilization and backfilling of the excavated creek channel grids (see Section 5.2.1). The second phase consisted of removing Site infrastructure and equipment required to conduct sediment excavation operations and making any necessary repairs to the property and/or constructed features resulting from sediment excavation operations. The third phase consisted of grading and placing temporary vegetation cover in areas disturbed by sediment excavation operations. Environmental controls such as silt fences and other control measures that prevented erosion and stabilized soil remained in place until vegetation was re-established (see Section 5.2.2).

#### **5.2.1 Bank Stabilization and Creek Channel Backfilling**

Restoration in all excavated grids began by stabilizing the toe of the creek bank. First, the channel bottom was covered with 8-ounce, non-woven geotextile fabric. Several types of rock were used to accomplish toe stabilization and to provide final creek channel bank cover. In areas with more than a 30-inch removal depth, a 24-inch-thick layer or more of 6-inch crushed stone (“rip rap”) was placed from bank to bank in the creek bottom. 6-inch “river rock” was placed along the creek banks to establish a 1 to 3 grade from the average creek water level elevation extending over the

top of the rip-rap layer. Finally, a sand and gravel mix (“bank run”) was used to backfill above the layers of 6-inch crushed stone/6-inch river rock to restore the original creek bottom elevation.

Coir logs were then installed on the eastern bank and portions of the western bank of Portage Creek. The coir logs were placed along the stream bank at the average creek level elevation just above the river rock. The adjacent ends of the coir rolls were tied together with twine. Wooden stakes (2-inch by 2-inch by 48-inches) were placed every three feet on the waterside and the land side to hold the coir logs on the slope, and twine was used to lash the coir logs to the wooden stakes. Other portions of the western bank were covered with large “rip-rap” stone at the request of the property owner for bank stabilization purposes. Once the creek channel was backfilled, all equipment, pump systems, infrastructure, materials, supplies, access roads, and support features were removed from the area.

Pre-existing constructed features on Site were repaired to their like-and-kind condition. The pre-removal features assessment (see Section 2.2) and an inventory of fixed constructed features were conducted prior to the start of sediment excavation activities to document pre-existing conditions. A post-removal features assessment (see Section 5.1) was completed to assess any damage to constructed features resulting from excavation activities. All corrective actions necessary to repair any damaged features resulting from the sediment excavation operations were completed, such as any damages to the asphalt pavement (i.e., the parking lot and recreational trail) and concrete sidewalk sections. A short “boardwalk” section of the Kalamazoo River Valley Trail, which initially was removed to allow for placement of the by-pass pumping system discharge lines, was replaced by a subcontractor. EPA coordinated with appropriate stakeholders to verify their acceptance of Site repairs and conducted final Site walk-through inspections with property owners.

### **5.2.2 Revegetation**

An area-specific restoration plan was completed in coordination with the property owners and in accordance with the overall Site Restoration Plan. Once the overall area was re-graded with fresh topsoil, a subcontractor implemented the area-specific restoration plan. The area-specific restoration plan included the planting of trees, shrubs, and vegetative plugs throughout the impacted areas and the application of a grass seed/fertilizer mix with a straw cover or coir matting to prevent erosion in the impacted areas. As noted in Section 5.2.1, portions of the western bank

were covered with large “rip-rap” stone or river rock as requested by the property owner for bank stabilization instead of vegetation. Finally, ornamental garden plants temporarily removed from the western bank and from Rose Veterans Memorial Park were re-planted in the Spring of 2014.

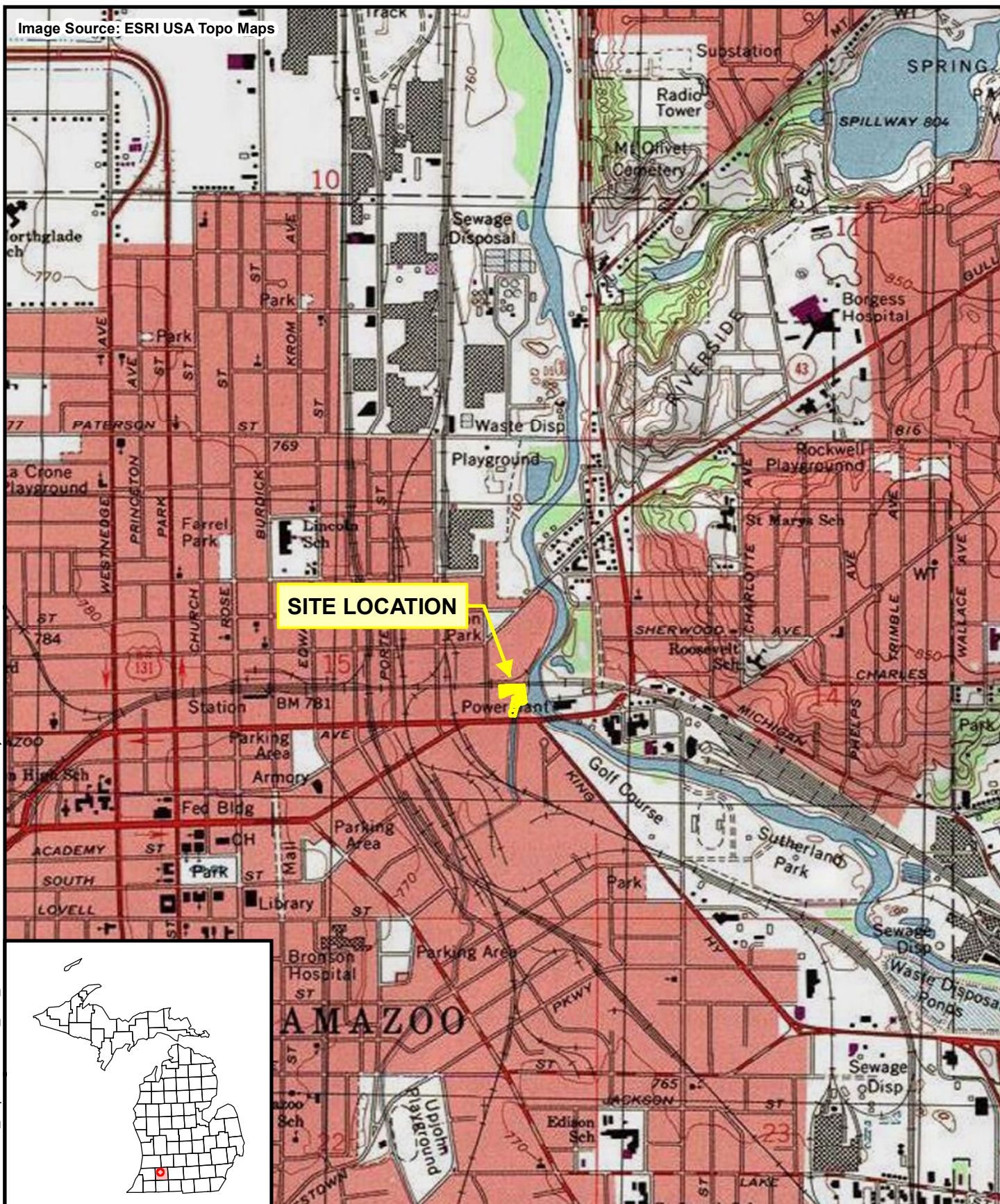


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## FIGURES

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Image Source: ESRI USA Topo Maps



# Legend

Site Boundary

0 2,000 Feet



Prepared For:  
U.S. EPA REGION V

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



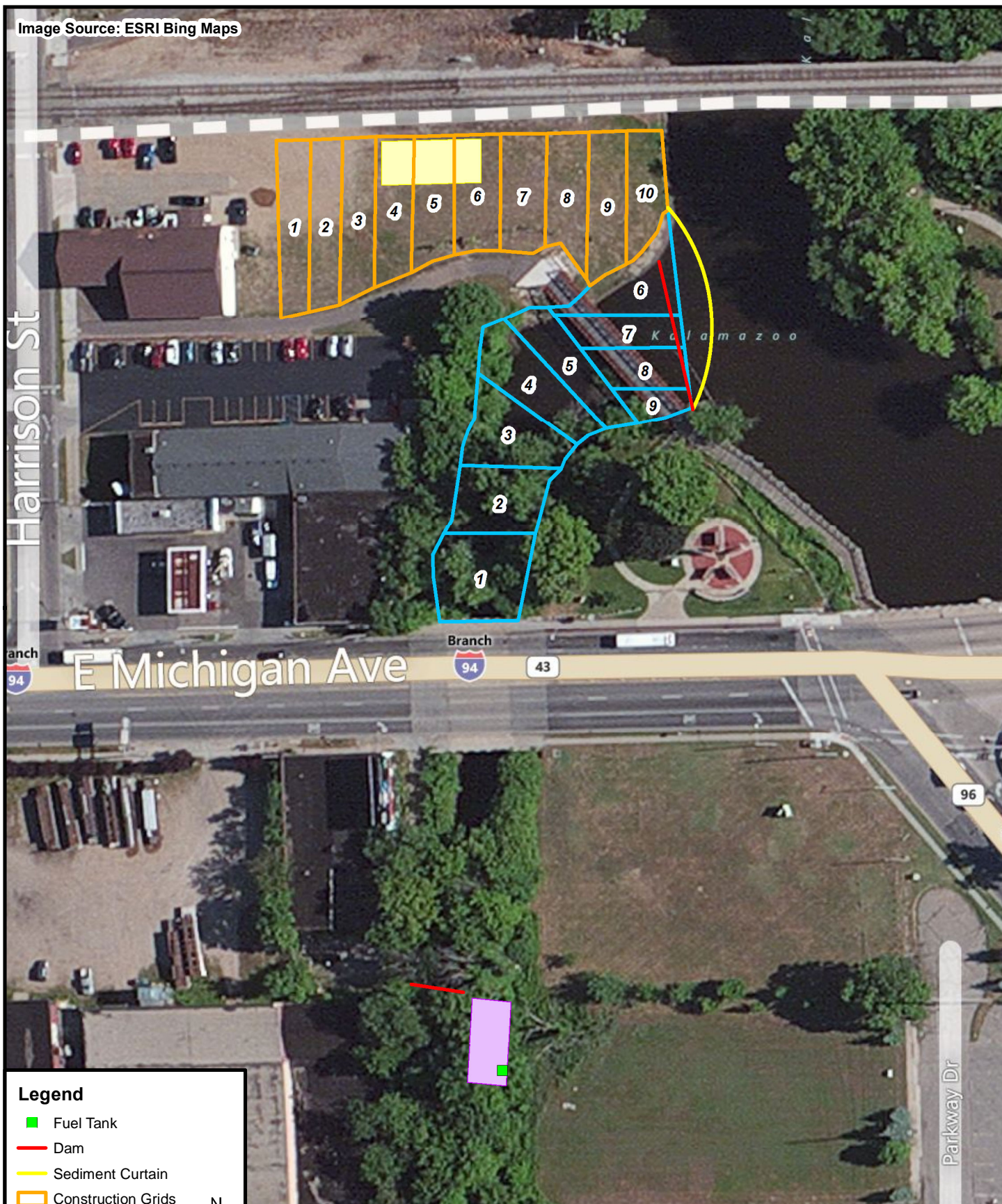
Prepared By:  
WESTON  
SOLUTIONS, INC

360 East Maple Road  
Suite R  
Troy, Michigan 48083

**Figure I-1**  
Site Location Map  
Portage Creek Area SA1-A  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



### Legend

- Fuel Tank
- Dam
- Sediment Curtain
- Construction Grids
- Pump
- Removal Grids
- Truck Wash

0 125  
Feet



Prepared For:  
**U.S. EPA REGION V**

Contract No.: EP-S5-06-04  
TDD: S05-0008-1107-001  
DCN: 1526-2A-BJNH



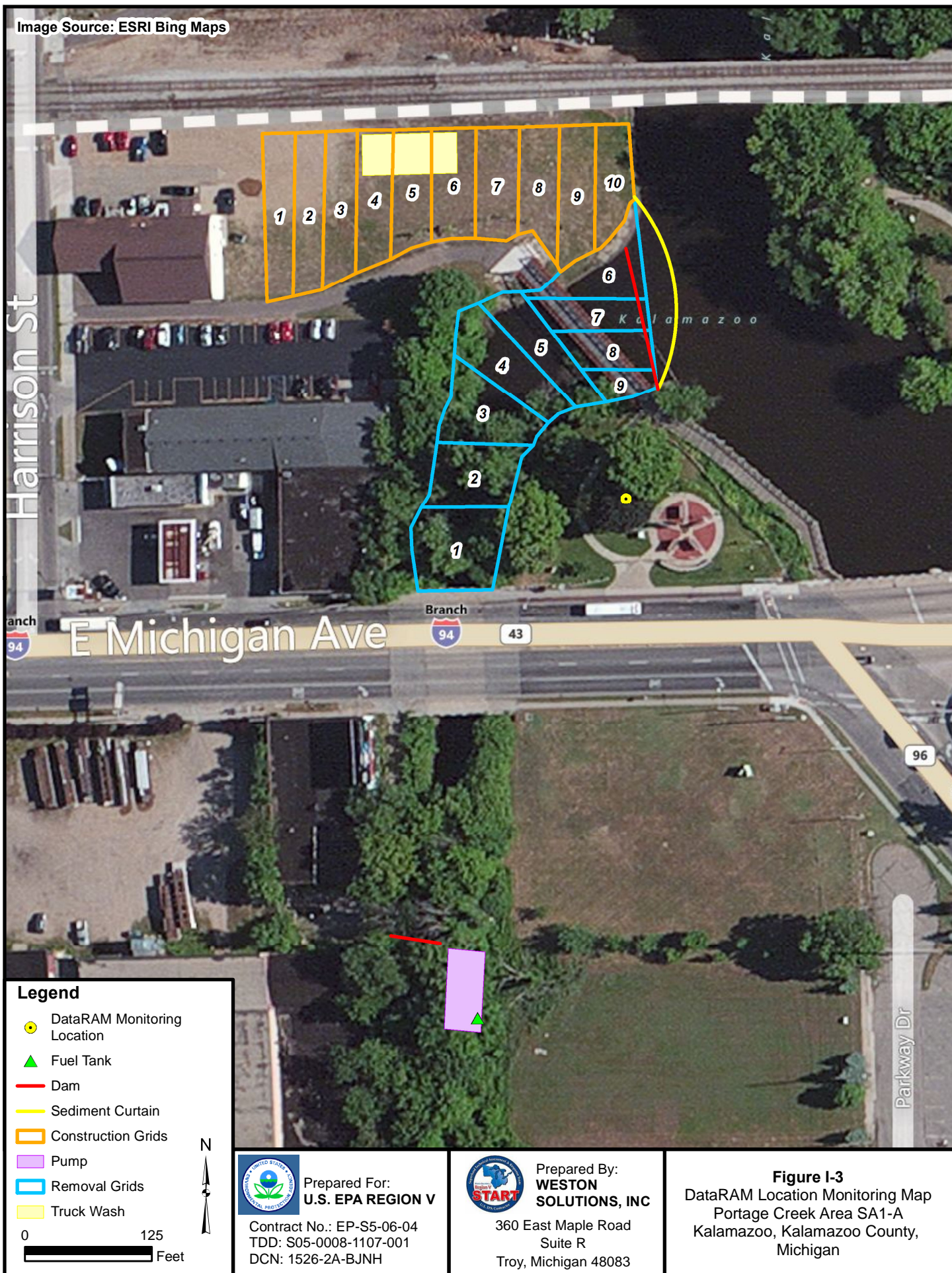
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**Figure I-2**  
Site Features/Setup Map  
Portage Creek Area SA1-A  
Kalamazoo, Kalamazoo County,  
Michigan



Image Source: ESRI Bing Maps



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## TABLES

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**Table I-1**  
**SA1-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-1	PRSD-SA1A-1	PRSD-SA1A-2
		Field Sample ID	PRSD-SA1A-1(0-12")-050213	PRSD-SA1A-1(12-24")-050213	PRSD-SA1A-2(0-12")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	0- 12	12- 24	0- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.054 U	0.057 U	0.049 U
8082	AROCLOR 1221	mg/kg	0.054 U	0.057 U	0.049 U
8082	AROCLOR 1232	mg/kg	0.054 U	0.057 U	0.049 U
8082	AROCLOR 1242	mg/kg	6.3	0.057 U	0.95
8082	AROCLOR 1248	mg/kg	0.054 U	0.057 U	0.049 U
8082	AROCLOR 1254	mg/kg	0.91	0.057 U	0.14
8082	AROCLOR 1260	mg/kg	0.054 U	0.057 U	0.049 U
8082	Total PCBs (Sum of Detections)	mg/kg	7.21	0 U	1.09

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-2	PRSD-SA1A-2	PRSD-SA1A-3
		Field Sample ID	PRSD-SA1A-2(12-27")-050213	PRSD-SA1A-2(27-39")-050213	PRSD-SA1A-3(0-12")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	12- 27	27- 39	0- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.072 U	0.067 U	0.09 U
8082	AROCLOR 1221	mg/kg	0.072 U	0.067 U	0.09 U
8082	AROCLOR 1232	mg/kg	0.072 U	0.067 U	0.09 U
8082	AROCLOR 1242	mg/kg	11	55	0.86
8082	AROCLOR 1248	mg/kg	0.072 U	0.067 U	0.09 U
8082	AROCLOR 1254	mg/kg	1.8	4.7	0.29
8082	AROCLOR 1260	mg/kg	0.072 U	0.067 U	0.09 U
8082	Total PCBs (Sum of Detections)	mg/kg	12.8	59.7	1.15



**Table I-1**  
**SA1-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-3	PRSD-SA1A-3	PRSD-SA1A-4
		Field Sample ID	PRSD-SA1A-3(12-24")-050213	PRSD-SA1A-3(24-31")-050213	PRSD-SA1A-4(0-12")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	12- 24	24- 31	0- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.053 U	0.06 U	0.051 U
8082	AROCLOR 1221	mg/kg	0.053 U	0.06 U	0.051 U
8082	AROCLOR 1232	mg/kg	0.053 U	0.06 U	0.051 U
8082	AROCLOR 1242	mg/kg	0.67	0.38	0.051 U
8082	AROCLOR 1248	mg/kg	0.053 U	0.06 U	0.051 U
8082	AROCLOR 1254	mg/kg	0.19	0.18	0.051 U
8082	AROCLOR 1260	mg/kg	0.053 U	0.06 U	0.051 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.86	0.56	0 U

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-4	PRSD-SA1A-4	PRSD-SA1A-4
		Field Sample ID	PRSD-SA1A-4(12-24")-050213	PRSD-SA1A-4(24-31")-050213	PRSD-SA1A-4(31-43")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	12- 24	24- 31	31- 43
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.05 U	0.049 U	0.051 U
8082	AROCLOR 1221	mg/kg	0.05 U	0.049 U	0.051 U
8082	AROCLOR 1232	mg/kg	0.05 U	0.049 U	0.051 U
8082	AROCLOR 1242	mg/kg	0.65	0.61	0.95
8082	AROCLOR 1248	mg/kg	0.05 U	0.049 U	0.051 U
8082	AROCLOR 1254	mg/kg	0.16	0.17	0.21
8082	AROCLOR 1260	mg/kg	0.05 U	0.049 U	0.051 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.81	0.78	1.16

**Table I-1**  
**SA1-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-5	PRSD-SA1A-6	PRSD-SA1A-6
		Field Sample ID	PRSD-SA1A-5(0-14")-050213	PRSD-SA1A-6(0-12")-050213	PRSD-SA1A-6(12-24")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	0- 14	0- 12	12- 24
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.053 U	0.059 U	0.056 U
8082	AROCLOR 1221	mg/kg	0.053 U	0.059 U	0.056 U
8082	AROCLOR 1232	mg/kg	0.053 U	0.059 U	0.056 U
8082	AROCLOR 1242	mg/kg	0.99	0.059 U	0.056 U
8082	AROCLOR 1248	mg/kg	0.053 U	0.059 U	0.056 U
8082	AROCLOR 1254	mg/kg	0.21	0.059 U	0.056 U
8082	AROCLOR 1260	mg/kg	0.053 U	0.059 U	0.056 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.2	0 U	0 U

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-6	PRSD-SA1A-7	PRSD-SA1A-7
		Field Sample ID	PRSD-SA1A-6(24-39")-050213	PRSD-SA1A-7(0-12")-050213	PRSD-SA1A-7(12-24")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	24- 39	0- 12	12- 24
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.057 U	0.046 U	0.051 U
8082	AROCLOR 1221	mg/kg	0.057 U	0.046 U	0.051 U
8082	AROCLOR 1232	mg/kg	0.057 U	0.046 U	0.051 U
8082	AROCLOR 1242	mg/kg	0.057 U	1.2	6.1
8082	AROCLOR 1248	mg/kg	0.057 U	0.046 U	0.051 U
8082	AROCLOR 1254	mg/kg	0.057 U	0.41	0.48
8082	AROCLOR 1260	mg/kg	0.057 U	0.046 U	0.051 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	1.61	6.58

**Table I-1**  
**SA1-A Pre-Removal Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-7	PRSD-SA1A-8	PRSD-SA1A-8
		Field Sample ID	PRSD-SA1A-7(24-31")-050213	PRSD-SA1A-8(0-12")-050213	PRSD-SA1A-8(12-24")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	24- 31	0- 12	12- 24
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.045 U	0.047 U	0.044 U
8082	AROCLOR 1221	mg/kg	0.045 U	0.047 U	0.044 U
8082	AROCLOR 1232	mg/kg	0.045 U	0.047 U	0.044 U
8082	AROCLOR 1242	mg/kg	0.97	0.39	0.95
8082	AROCLOR 1248	mg/kg	0.045 U	0.047 U	0.044 U
8082	AROCLOR 1254	mg/kg	0.11	0.085	0.11
8082	AROCLOR 1260	mg/kg	0.045 U	0.047 U	0.044 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.08	0.475	1.06

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre Removal	Pre Removal	Pre Removal
		Location ID	PRSD-SA1A-8	PRSD-SA1A-9	PRSD-SA1A-9
		Field Sample ID	PRSD-SA1A-8(24-29")-050213	PRSD-SA1A-9(0-12")-050213	PRSD-SA1A-9(12-25")-050213
		Sampling Date	5/2/2013	5/2/2013	5/2/2013
		Depth Interval (inches bss)	24- 29	0- 12	12- 25
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.052 U	0.1 U	0.049 U
8082	AROCLOR 1221	mg/kg	0.052 U	0.1 U	0.049 U
8082	AROCLOR 1232	mg/kg	0.052 U	0.1 U	0.049 U
8082	AROCLOR 1242	mg/kg	11	0.59	1.2
8082	AROCLOR 1248	mg/kg	0.052 U	0.1 U	0.049 U
8082	AROCLOR 1254	mg/kg	0.79	0.25	0.57
8082	AROCLOR 1260	mg/kg	0.052 U	0.1 U	0.049 U
8082	Total PCBs (Sum of Detections)	mg/kg	11.79	0.84	1.77

Notes:

bss = Below sediment surface

ID = Identification

mg/kg = Milligram per kilogram

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-01	PREC-SA1A-02	PREC-SA1A-03	PREC-SA1A-04	PREC-SA1A-05	PREC-SA1A-06
		Field Sample ID	PREC-SA1A-01-072913	PREC-SA1A-02-072913	PREC-SA1A-03-072913	PREC-SA1A-04-072913	PREC-SA1A-05-072913	PREC-SA1A-06-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-01	PREC-SA1A-02	PREC-SA1A-03	PREC-SA1A-04	PREC-SA1A-05	PREC-SA1A-06
		Field Sample ID	PREC-SA1A-01-072913	PREC-SA1A-02-072913	PREC-SA1A-03-072913	PREC-SA1A-04-072913	PREC-SA1A-05-072913	PREC-SA1A-06-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	AROCLOR 1221	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	AROCLOR 1232	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	AROCLOR 1242	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	AROCLOR 1248	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	AROCLOR 1254	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	AROCLOR 1260	mg/kg	0.174 U	0.0357 U	0.0359 U	0.0359 U	0.0363 U	0.183 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0 U	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-01	PREC-SA1A-02	PREC-SA1A-03	PREC-SA1A-04	PREC-SA1A-05	PREC-SA1A-06
		Field Sample ID	PREC-SA1A-01-072913	PREC-SA1A-02-072913	PREC-SA1A-03-072913	PREC-SA1A-04-072913	PREC-SA1A-05-072913	PREC-SA1A-06-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA



Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-01	PREC-SA1A-02	PREC-SA1A-03	PREC-SA1A-04	PREC-SA1A-05	PREC-SA1A-06
		Field Sample ID	PREC-SA1A-01-072913	PREC-SA1A-02-072913	PREC-SA1A-03-072913	PREC-SA1A-04-072913	PREC-SA1A-05-072913	PREC-SA1A-06-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-01	PREC-SA1A-02	PREC-SA1A-03	PREC-SA1A-04	PREC-SA1A-05	PREC-SA1A-06
		Field Sample ID	PREC-SA1A-01-072913	PREC-SA1A-02-072913	PREC-SA1A-03-072913	PREC-SA1A-04-072913	PREC-SA1A-05-072913	PREC-SA1A-06-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-01	PREC-SA1A-02	PREC-SA1A-03	PREC-SA1A-04	PREC-SA1A-05	PREC-SA1A-06
		Field Sample ID	PREC-SA1A-01-072913	PREC-SA1A-02-072913	PREC-SA1A-03-072913	PREC-SA1A-04-072913	PREC-SA1A-05-072913	PREC-SA1A-06-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit						
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-07	PREC-SA1A-08	PREC-SA1A-08	PREC-SA1A-09	PREC-SA1A-10
		Field Sample ID	PREC-SA1A-07-072913	PREC-SA1A-08-072913	PREC-SA1A-08-072913-DP	PREC-SA1A-09-072913	PREC-SA1A-10-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA
6020A	ANTIMONY	mg/kg	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA
6020A	COPPER	mg/kg	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA
6020A	MANGANESE	mg/kg	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA
6020A	THALLIUM	mg/kg	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA
8081	KEPONE, PEST	µg/kg	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-07	PREC-SA1A-08	PREC-SA1A-08	PREC-SA1A-09	PREC-SA1A-10
		Field Sample ID	PREC-SA1A-07-072913	PREC-SA1A-08-072913	PREC-SA1A-08-072913-DP	PREC-SA1A-09-072913	PREC-SA1A-10-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA
8082	AROCLOR 1016	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0368 U
8082	AROCLOR 1221	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0368 U
8082	AROCLOR 1232	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0368 U
8082	AROCLOR 1242	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0371
8082	AROCLOR 1248	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0368 U
8082	AROCLOR 1254	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0368 U
8082	AROCLOR 1260	mg/kg	0.0373 U	0.0364 U	0.0367 U	0.0365 U	0.0466
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0 U	0 U	0.0837
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID	µg/kg	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-07	PREC-SA1A-08	PREC-SA1A-08	PREC-SA1A-09	PREC-SA1A-10
		Field Sample ID	PREC-SA1A-07-072913	PREC-SA1A-08-072913	PREC-SA1A-08-072913-DP	PREC-SA1A-09-072913	PREC-SA1A-10-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA



Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-07	PREC-SA1A-08	PREC-SA1A-08	PREC-SA1A-09	PREC-SA1A-10
		Field Sample ID	PREC-SA1A-07-072913	PREC-SA1A-08-072913	PREC-SA1A-08-072913-DP	PREC-SA1A-09-072913	PREC-SA1A-10-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLETHER	µg/kg	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-07	PREC-SA1A-08	PREC-SA1A-08	PREC-SA1A-09	PREC-SA1A-10
		Field Sample ID	PREC-SA1A-07-072913	PREC-SA1A-08-072913	PREC-SA1A-08-072913-DP	PREC-SA1A-09-072913	PREC-SA1A-10-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA
8270	DIALLATE	µg/kg	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction	Pre-construction	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-07	PREC-SA1A-08	PREC-SA1A-08	PREC-SA1A-09	PREC-SA1A-10
		Field Sample ID	PREC-SA1A-07-072913	PREC-SA1A-08-072913	PREC-SA1A-08-072913-DP	PREC-SA1A-09-072913	PREC-SA1A-10-072913
		Sampling Date	7/29/2013	7/29/2013	7/29/2013	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA
8270	O <sub>2</sub> O <sub>2</sub> O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-COMP-01	PREC-SA1A-COMP-02
		Field Sample ID	PREC-SA1A-COMPOSITE-01-072913	PREC-SA1A-COMPOSITE-02-072913
		Sampling Date	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
6010B	ALUMINUM	mg/kg	3450 J	3700 J
6020A	ANTIMONY	mg/kg	0.427 J	0.609 J
6010B	ARSENIC	mg/kg	5.81	14.6
6010B	BARIUM	mg/kg	44.3	79.1
6010B	BERYLLIUM	mg/kg	0.487 U	0.543 U
6010B	CADMIUM	mg/kg	0.379	0.621
6010B	CALCIUM	mg/kg	28300	18700
6010B	CHROMIUM	mg/kg	11.2 J	12.4 J
6010B	COBALT	mg/kg	4.87 U	6.11
6020A	COPPER	mg/kg	101	190
6010B	IRON	mg/kg	11000	13700
6010B	LEAD	mg/kg	109 J	120 J
6010B	MAGNESIUM	mg/kg	9000 J	6430 J
6020A	MANGANESE	mg/kg	340 J	501 J
7471B	MERCURY	mg/kg	0.146	0.171
6010B	NICKEL	mg/kg	13.4	20
6010B	POTASSIUM	mg/kg	487 U	543 U
6010B	SELENIUM	mg/kg	0.487 U	0.543 U
6010B	SILVER	mg/kg	0.487 U	0.543 U
6010B	SODIUM	mg/kg	487 U	543 U
6020A	THALLIUM	mg/kg	0.39 U	0.435 U
6010B	VANADIUM	mg/kg	10.4	12.1
6010B	ZINC	mg/kg	96.8 J	203 J
8081	4,4'-DDD	µg/kg	36.6 U	38 U
8081	4,4'-DDE	µg/kg	36.6 U	38 U
8081	4,4'-DDT	µg/kg	36.6 U	38 U
8081	ALDRIN	µg/kg	36.6 U	38 U
8081	ALPHA-BHC	µg/kg	36.6 U	38 U
8081	ALPHA-CHLORDANE	µg/kg	36.6 U	38 U
8081	BETA-BHC	µg/kg	36.6 U	38 U
8081	CHLORDANE	µg/kg	366 U	380 U
8081	DELTA-BHC	µg/kg	36.6 U	38 U
8081	DIELDRIN	µg/kg	36.6 U	38 U
8081	ENDOSULFAN I	µg/kg	36.6 U	38 U
8081	ENDOSULFAN II	µg/kg	36.6 U	38 U
8081	ENDOSULFAN SULFATE	µg/kg	36.6 U	38 U
8081	ENDRIN	µg/kg	36.6 U	38 U
8081	ENDRIN ALDEHYDE	µg/kg	36.6 U	38 U
8081	ENDRIN KETONE	µg/kg	36.6 U	38 U
8081	GAMMA-BHC (LINDANE)	µg/kg	36.6 U	38 U
8081	GAMMA-CHLORDANE	µg/kg	36.6 U	38 U
8081	HEPTACHLOR	µg/kg	36.6 U	38 U
8081	HEPTACHLOR EPOXIDE	µg/kg	36.6 U	38 U
8081	KEPONE, PEST	µg/kg	711 U	738 U
8081	METHOXYCHLOR	µg/kg	71.1 U	73.8 U

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-COMP-01	PREC-SA1A-COMP-02
		Field Sample ID	PREC-SA1A-COMPOSITE-01-072913	PREC-SA1A-COMPOSITE-02-072913
		Sampling Date	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8081	TOXAPHENE	µg/kg	1440 U	1500 U
8082	AROCLOR 1016	mg/kg	0.0356 U	0.0369 U
8082	AROCLOR 1221	mg/kg	0.0356 U	0.0369 U
8082	AROCLOR 1232	mg/kg	0.0356 U	0.0369 U
8082	AROCLOR 1242	mg/kg	0.0356 U	0.0369 U
8082	AROCLOR 1248	mg/kg	0.0356 U	0.0369 U
8082	AROCLOR 1254	mg/kg	0.0356 U	0.0369 U
8082	AROCLOR 1260	mg/kg	0.0356 U	0.0369 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U
8151A	2,4,5-T	µg/kg	8.97 U	9.19 U
8151A	2,4,5-TP (SILVEX)	µg/kg	8.97 U	9.19 U
8151A	2,4-D	µg/kg	8.97 U	9.19 U
8151A	2,4-DB	µg/kg	8.97 U	9.19 U
8151A	DALAPON	µg/kg	357 U	365 U
8151A	DICAMBA	µg/kg	8.97 U	9.19 U
8151A	DICHLOROPROP	µg/kg	8.97 U	9.19 U
8151A	DINOSEB	µg/kg	108 U	111 U
8151A	MCPA	µg/kg	2160 U	2210 U
8151A	MECOPROP	µg/kg	2160 U	2210 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	8.97 U	9.19 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	1,1-DICHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	1,1-DICHLOROETHENE	µg/kg	5.32 U	5.36 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	5.32 U	5.36 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	5.32 U	5.36 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	10.6 U	10.7 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	5.32 U	5.36 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	5.32 U	5.36 U
8260	1,2-DICHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	10.6 U	10.7 U
8260	1,2-DICHLOROPROPANE	µg/kg	5.32 U	5.36 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	5.32 U	5.36 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	10.6 U	10.7 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	5.32 U	5.36 U
8260	2-BUTANONE (MEK)	µg/kg	21.3 U	21.4 U
8260	2-HEXANONE	µg/kg	21.3 U	21.4 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	21.3 U	21.4 U
8260	ACETONE	µg/kg	21.3 U	21.4 U
8260	ACROLEIN	µg/kg	106 U	107 U
8260	ACRYLONITRILE	µg/kg	106 U	107 U
8260	ALLYL CHLORIDE	µg/kg	10.6 U	10.7 U

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-COMP-01	PREC-SA1A-COMP-02
		Field Sample ID	PREC-SA1A-COMPOSITE-01-072913	PREC-SA1A-COMPOSITE-02-072913
		Sampling Date	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8260	BENZENE	µg/kg	5.32 U	5.36 U
8260	BROMODICHLOROMETHANE	µg/kg	5.32 U	5.36 U
8260	BROMOFORM	µg/kg	5.32 U	5.36 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	5.32 U	5.36 U
8260	CARBON DISULFIDE	µg/kg	5.32 U	5.36 U
8260	CARBON TETRACHLORIDE	µg/kg	5.32 U	5.36 U
8260	CHLOROBENZENE	µg/kg	5.32 U	5.36 U
8260	CHLORODIBROMOMETHANE	µg/kg	5.32 U	5.36 U
8260	CHLOROETHANE	µg/kg	5.32 U	5.36 U
8260	CHLOROFORM	µg/kg	5.32 U	5.36 U
8260	CHLOROMETHANE	µg/kg	5.32 U	5.36 U
8260	CHLOROPRENE	µg/kg	5.32 U	5.36 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	5.32 U	5.36 U
8260	DIBROMOMETHANE	µg/kg	5.32 U	5.36 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	5.32 U	5.36 U
8260	ETHYL METHACRYLATE	µg/kg	5.32 U	5.36 U
8260	ETHYLBENZENE	µg/kg	5.32 U	5.36 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	5.32 U	5.36 U
8260	IODOMETHANE	µg/kg	5.32 U	5.36 U
8260	M,P-XYLENE	µg/kg	10.6 U	10.7 U
8260	METHACRYLONITRILE	µg/kg	5.32 U	5.36 U
8260	METHYL METHACRYLATE	µg/kg	5.32 U	5.36 U
8260	METHYLENE CHLORIDE	µg/kg	11.7	9.46
8260	O-XYLENE	µg/kg	5.32 U	5.36 U
8260	PROPIONITRILE	µg/kg	21.3 U	21.4 U
8260	STYRENE	µg/kg	5.32 U	5.36 U
8260	TETRACHLOROETHENE	µg/kg	5.32 U	5.36 U
8260	TOLUENE	µg/kg	5.32 U	5.36 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	5.32 U	5.36 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	5.32 U	5.36 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	5.32 U	5.36 U
8260	TRICHLOROETHENE	µg/kg	5.32 U	5.36 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	5.32 U	5.36 U
8260	VINYL ACETATE	µg/kg	10.6 U	10.7 U
8260	VINYL CHLORIDE	µg/kg	5.32 U	5.36 U
8260	XYLENE (TOTAL)	µg/kg	10.6 U	10.7 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	216 U	113 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	108 U	56.3 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	108 U	56.3 U
8270	1,3,5-TRINITROBENZENE	µg/kg	3460 U	1800 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	108 U	56.3 U
8270	1,3-DINITROBENZENE	µg/kg	713 U	372 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	108 U	56.3 U
8270	1,4-NAPHTHOQUINONE	µg/kg	713 U	372 U



Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-COMP-01	PREC-SA1A-COMP-02
		Field Sample ID	PREC-SA1A-COMPOSITE-01-072913	PREC-SA1A-COMPOSITE-02-072913
		Sampling Date	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	1,4-PHENYLENEDIAMINE	µg/kg	1430 U	743 U
8270	1-NAPHTHYLAMINE	µg/kg	713 U	372 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	3460 U	1800 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	324 U	169 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	324 U	169 U
8270	2,4-DICHLOROPHENOL	µg/kg	324 U	169 U
8270	2,4-DIMETHYLPHENOL	µg/kg	324 U	169 U
8270	2,4-DINITROPHENOL	µg/kg	713 U	372 U
8270	2,4-DINITROTOLUENE	µg/kg	432 U	225 U
8270	2,6-DICHLOROPHENOL	µg/kg	432 U	225 U
8270	2,6-DINITROTOLUENE	µg/kg	432 U	225 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	713 U	372 U
8270	2-CHLORONAPHTHALENE	µg/kg	108 U	56.3 U
8270	2-CHLOROPHENOL	µg/kg	108 U	56.3 U
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	88.1	161
8270	2-METHYLPHENOL	µg/kg	432 U	225 U
8270	2-NAPHTHYLAMINE	µg/kg	432 U	225 U
8270	2-NITROANILINE	µg/kg	432 U	225 U
8270	2-NITROPHENOL	µg/kg	108 U	56.3 U
8270	2-PICOLINE	µg/kg	713 U	372 U
8270	3&4-METHYLPHENOL	µg/kg	865 U	450 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	216 U	113 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	713 U	372 U
8270	3-METHYLCHOLANTHRENE	µg/kg	432 U	225 U
8270	3-NITROANILINE	µg/kg	432 U	225 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	324 U	169 U
8270	4-AMINOBIPHENYL	µg/kg	713 U	372 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	108 U	56.3 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	324 U	169 U
8270	4-CHLOROANILINE	µg/kg	324 U	169 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	108 U	56.3 U
8270	4-NITROANILINE	µg/kg	432 U	225 U
8270	4-NITROPHENOL, SVOC	µg/kg	713 U	372 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	713 U	372 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	713 U	372 U
8270	ACENAPHTHENE	µg/kg	56.6	68
8270	ACENAPHTHYLENE	µg/kg	99.5	117
8270	ACETOPHENONE	µg/kg	216 U	113 U
8270	ANILINE	µg/kg	713 U	372 U
8270	ANTHRACENE	µg/kg	186	247
8270	BENZIDINE	µg/kg	1430 U	743 U
8270	BENZO(A)ANTHRACENE	µg/kg	843	959
8270	BENZO[A]PYRENE	µg/kg	872	951
8270	BENZO[B]FLUORANTHENE	µg/kg	1380	1490

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-COMP-01	PREC-SA1A-COMP-02
		Field Sample ID	PREC-SA1A-COMPOSITE-01-072913	PREC-SA1A-COMPOSITE-02-072913
		Sampling Date	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	BENZO[G,H,I]PERYLENE	µg/kg	349	498
8270	BENZO[K]FLUORANTHENE	µg/kg	350	388
8270	BENZYL ALCOHOL	µg/kg	713 U	372 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	216 U	113 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	216 U	113 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	216 U	113 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	151 U	81.1
8270	BUTYL BENZYL PHTHALATE	µg/kg	151 U	78.8 U
8270	CARBAZOLE	µg/kg	108 U	102
8270	CHLOROBENZILATE	µg/kg	713 U	372 U
8270	CHRYSENE	µg/kg	891	1010
8270	DIALLATE	µg/kg	713 U	372 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	104	145
8270	DIBENZOFURAN	µg/kg	108 U	77.1
8270	DIETHYL PHTHALATE	µg/kg	151 U	78.8 U
8270	DIMETHOATE	µg/kg	713 U	372 U
8270	DIMETHYL PHTHALATE	µg/kg	151 U	78.8 U
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	713 U	372 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	151 U	78.8 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	151 U	78.8 U
8270	DIPHENYLAMINE	µg/kg	216 U	113 U
8270	DISULFOTON	µg/kg	713 U	372 U
8270	ETHYL METHANESULFONATE	µg/kg	713 U	372 U
8270	FAMPHUR	µg/kg	7130 U	3720 U
8270	FLUORANTHENE	µg/kg	1560	1780
8270	FLUORENE	µg/kg	53.5	67.4
8270	HEXACHLOROBENZENE, SVOC	µg/kg	14.4 U	7.51 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	108 U	56.3 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	713 U	372 UJ
8270	HEXACHLOROETHANE	µg/kg	108 U	56.3 U
8270	HEXACHLOROPROPENE	µg/kg	713 U	372 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	315	410
8270	ISODRIN	µg/kg	713 U	372 U
8270	ISOPHORONE	µg/kg	108 U	56.3 U
8270	ISOSAFROLE	µg/kg	713 U	372 U
8270	METHAPYRILENE	µg/kg	713 U	372 U
8270	METHYL METHANESULFONATE	µg/kg	713 U	372 U
8270	METHYL PARATHION	µg/kg	713 U	372 U
8270	NAPHTHALENE, SVOC	µg/kg	134	197
8270	NITROBENZENE	µg/kg	216 U	113 U
8270	N-NITROSODIETHYLAMINE	µg/kg	216 U	113 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	216 U	113 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	216 U	113 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	108 U	56.3 U

Table I-2  
SA1-A Pre-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Pre-construction	Pre-construction
		Location ID	PREC-SA1A-COMP-01	PREC-SA1A-COMP-02
		Field Sample ID	PREC-SA1A-COMPOSITE-01-072913	PREC-SA1A-COMPOSITE-02-072913
		Sampling Date	7/29/2013	7/29/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	N-NITROSODIPHENYLAMINE	µg/kg	108 U	56.3 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	216 U	113 U
8270	N-NITROSOMORPHOLINE	µg/kg	713 U	372 U
8270	N-NITROSOPIPERIDINE	µg/kg	713 U	372 U
8270	N-NITROSOPYRROLIDINE	µg/kg	108 U	56.3 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	713 U	372 U
8270	O-TOLUIDINE	µg/kg	713 U	372 U
8270	PARATHION	µg/kg	713 U	372 U
8270	PENTACHLOROBENZENE	µg/kg	216 U	113 U
8270	PENTACHLORONITROBENZENE	µg/kg	713 U	372 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	324 U	169 U
8270	PHENACETIN	µg/kg	713 U	372 U
8270	PHENANTHRENE	µg/kg	738	1010
8270	PHENOL	µg/kg	108 U	56.3 U
8270	PHORATE	µg/kg	713 U	372 U
8270	PRONAMIDE	µg/kg	713 U	372 U
8270	PYRENE	µg/kg	1340	1660
8270	PYRIDINE	µg/kg	216 U	113 U
8270	SAFROLE	µg/kg	713 U	372 U
8270	SULFOTEPP	µg/kg	713 U	372 U
8270	THIONAZIN	µg/kg	713 U	372 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

**Table I-3**  
**SA1-A Confirmation, Verification, Investigative, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA1A-01	CSD-SA1A-02	CSD-SA1A-03
		Field Sample ID	CSD-SA1A-01-091113	CSD-SA1A-02-091213	CSD-SA1A-03-091613
		Sampling Date	9/11/2013	9/12/2013	9/12/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.055 U	0.046 U	0.048 U
8082	AROCLOR 1221	mg/kg	0.055 U	0.046 U	0.048 U
8082	AROCLOR 1232	mg/kg	0.055 U	0.046 U	0.048 U
8082	AROCLOR 1242	mg/kg	0.055 U	0.046 U	0.048 U
8082	AROCLOR 1248	mg/kg	0.7	0.44	0.55
8082	AROCLOR 1254	mg/kg	0.12	0.087	0.15
8082	AROCLOR 1260	mg/kg	0.055 U	0.046 U	0.048 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.82	0.527	0.7

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA1A-04	CSD-SA1A-04	CSD-SA1A-05
		Field Sample ID	CSD-SA1A-04-092313	CSD-SA1A-04-092313-DP	CSD-SA1A-05-091913
		Sampling Date	9/23/2013	9/23/2013	9/19/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.046 U	0.046 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.046 U	0.046 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.046 U	0.046 U	0.045 U
8082	AROCLOR 1242	mg/kg	0.046 U	0.046 U	0.045 U
8082	AROCLOR 1248	mg/kg	0.22	0.16	0.049
8082	AROCLOR 1254	mg/kg	0.046 U	0.046 U	0.045 U
8082	AROCLOR 1260	mg/kg	0.046 U	0.046 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.22	0.16	0.049

**Table I-3**  
**SA1-A Confirmation, Verification, Investigative, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Confirmation	Confirmation	Confirmation
		Location ID	CSD-SA1A-06	CSD-SA1A-07	CSD-SA1A-08
		Field Sample ID	CSD-SA1A-06-092513	CSD-SA1A-07-092513	CSD-SA1A-08-092413
		Sampling Date	9/25/2013	9/25/2013	9/24/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.044 U	0.045 U	0.043 U
8082	AROCLOR 1221	mg/kg	0.044 U	0.045 U	0.043 U
8082	AROCLOR 1232	mg/kg	0.044 U	0.045 U	0.043 U
8082	AROCLOR 1242	mg/kg	0.044 U	0.045 U	0.043 U
8082	AROCLOR 1248	mg/kg	0.044 U	0.48	0.69
8082	AROCLOR 1254	mg/kg	0.044 U	0.087	0.27
8082	AROCLOR 1260	mg/kg	0.044 U	0.045 U	0.043 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.567	0.96

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Confirmation	Node	Node
		Location ID	CSD-SA1A-09	NSD-SA1A-02-07	NSD-SA1A-02-08
		Field Sample ID	CSD-SA1A-09-092413	NSD-SA1A-02-07-091213	NSD-SA1A-02-08-091213
		Sampling Date	9/24/2013	9/12/2013	9/12/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.047 U	0.045 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.047 U	0.045 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.047 U	0.045 U	0.045 U
8082	AROCLOR 1242	mg/kg	0.047 U	0.045 U	0.045 U
8082	AROCLOR 1248	mg/kg	0.61	0.045 U	0.085
8082	AROCLOR 1254	mg/kg	0.17	0.045 U	0.045 U
8082	AROCLOR 1260	mg/kg	0.047 U	0.045 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	0.78	0 U	0.085

**Table I-3**  
**SA1-A Confirmation, Verification, Investigative, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Node	Node	Node
		Location ID	NSD-SA1A-02-09	NSD-SA1A-02-10	NSD-SA1A-02-11
		Field Sample ID	NSD-SA1A-02-09-091213	NSD-SA1A-02-10-091213	NSD-SA1A-02-11-091213
		Sampling Date	9/12/2013	9/12/2013	9/12/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.044 U	0.043 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.044 U	0.043 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.044 U	0.043 U	0.045 U
8082	AROCLOR 1242	mg/kg	0.044 U	0.043 U	0.045 U
8082	AROCLOR 1248	mg/kg	0.044 U	0.043 U	0.24
8082	AROCLOR 1254	mg/kg	0.044 U	0.043 U	0.045 U
8082	AROCLOR 1260	mg/kg	0.044 U	0.043 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0 U	0.24

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Node	Node	Node
		Location ID	NSD-SA1A-02-12	NSD-SA1A-03-13	NSD-SA1A-03-14
		Field Sample ID	NSD-SA1A-02-12-091213	NSD-SA1A-03-13-091613	NSD-SA1A-03-14-091613
		Sampling Date	9/12/2013	9/16/2013	9/16/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.04 U	0.041 U	0.045 U
8082	AROCLOR 1221	mg/kg	0.04 U	0.041 U	0.045 U
8082	AROCLOR 1232	mg/kg	0.04 U	0.041 U	0.045 U
8082	AROCLOR 1242	mg/kg	0.04 U	0.041 U	0.045 U
8082	AROCLOR 1248	mg/kg	0.04 U	0.14	0.045 U
8082	AROCLOR 1254	mg/kg	0.04 U	0.041 U	0.045 U
8082	AROCLOR 1260	mg/kg	0.04 U	0.041 U	0.045 U
8082	Total PCBs (Sum of Detections)	mg/kg	0 U	0.14	0 U



**Table I-3**  
**SA1-A Confirmation, Verification, Investigative, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Node	Node	Node
		Location ID	NSD-SA1A-03-15	NSD-SA1A-03-16	NSD-SA1A-03-17
		Field Sample ID	NSD-SA1A-03-15-091613	NSD-SA1A-03-16-091613	NSD-SA1A-03-17-091613
		Sampling Date	9/16/2013	9/16/2013	9/16/2013
		Depth Interval (inches bss)	NA	NA	NA
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.054 U	0.052 U	0.055 U
8082	AROCLOR 1221	mg/kg	0.054 U	0.052 U	0.055 U
8082	AROCLOR 1232	mg/kg	0.054 U	0.052 U	0.055 U
8082	AROCLOR 1242	mg/kg	0.054 U	0.052 U	0.055 U
8082	AROCLOR 1248	mg/kg	1.9	1.3	1
8082	AROCLOR 1254	mg/kg	0.64	0.36	0.27
8082	AROCLOR 1260	mg/kg	0.054 U	0.052 U	0.055 U
8082	Total PCBs (Sum of Detections)	mg/kg	2.54	1.66	1.27

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Node	Investigative	Investigative
		Location ID	NSD-SA1A-03-18	INV-SA1A-08	INV-SA1A-08
		Field Sample ID	NSD-SA1A-03-18-091613	INV-SA1A-08-091813	INV-SA1A-08-0to12-091813
		Sampling Date	9/16/2013	9/18/2013	9/18/2013
		Depth Interval (inches bss)	NA	NA	8- 12
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.06 U	0.051 U	0.044 U
8082	AROCLOR 1221	mg/kg	0.06 U	0.051 U	0.044 U
8082	AROCLOR 1232	mg/kg	0.06 U	0.051 U	0.044 U
8082	AROCLOR 1242	mg/kg	0.06 U	0.051 U	0.044 U
8082	AROCLOR 1248	mg/kg	1	6.6	0.95
8082	AROCLOR 1254	mg/kg	0.51	0.27	0.15
8082	AROCLOR 1260	mg/kg	0.06 U	0.051 U	0.044 U
8082	Total PCBs (Sum of Detections)	mg/kg	1.51	6.87	1.1

**Table I-3**  
**SA1-A Confirmation, Verification, Investigative, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Investigative	Investigative	Investigative
		Location ID	INV-SA1A-08	INV-SA1A-08	INV-SA1A-08
		Field Sample ID	091813	INV-SA1A-08-24to36-091813	INV-SA1A-08-36to48-091813
		Sampling Date	9/18/2013	9/18/2013	9/18/2013
		Depth Interval (inches bss)	12- 24	24- 36	36- 48
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.06 U	0.06 U	0.048 U
8082	AROCLOR 1221	mg/kg	0.06 U	0.06 U	0.048 U
8082	AROCLOR 1232	mg/kg	0.06 U	0.06 U	0.048 U
8082	AROCLOR 1242	mg/kg	0.06 U	0.06 U	0.048 U
8082	AROCLOR 1248	mg/kg	13	3.9	2.7
8082	AROCLOR 1254	mg/kg	0.91	0.43	0.21
8082	AROCLOR 1260	mg/kg	0.06 U	0.06 U	0.048 U
8082	Total PCBs (Sum of Detections)	mg/kg	13.91	4.33	2.91

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Verification	Verification	Verification
		Location ID	VER-SA1A-01	VER-SA1A-04	VER-SA1A-05
		Field Sample ID	VER-SA1A-01(30)-091113	VER-SA1A-04(42)-092313	VER-SA1A-05(42)-091813
		Sampling Date	9/11/2013	9/23/2013	9/18/2013
		Depth Interval (inches bss)	30	42	42
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.068 U	0.067 U	0.07 U
8082	AROCLOR 1221	mg/kg	0.068 U	0.067 U	0.07 U
8082	AROCLOR 1232	mg/kg	0.068 U	0.067 U	0.07 U
8082	AROCLOR 1242	mg/kg	0.068 U	0.067 U	0.07 U
8082	AROCLOR 1248	mg/kg	5.5	1.1	0.07 U
8082	AROCLOR 1254	mg/kg	0.93	0.44	0.07 U
8082	AROCLOR 1260	mg/kg	0.068 U	0.067 U	0.07 U
8082	Total PCBs (Sum of Detections)	mg/kg	6.43	1.54	0 U

**Table I-3**  
**SA1-A Confirmation, Verification, Investigative, and Node Sediment Sampling Results**  
**Portage Creek Area Site**  
**Kalamazoo, Kalamazoo County, Michigan**

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Verification	Verification	Verification
		Location ID	VER-SA1A-07	VER-SA1A-08	VER-SA1A-08
		Field Sample ID	VER-SA1A-07(60''')-092413	VER-SA1A-08(36''')-092413	VER-SA1A-08(36''')-092413-DP
		Sampling Date	9/24/2013	9/24/2013	9/24/2013
		Depth Interval (inches bss)	60	36	36
Analytical Method	Chemical Name	Unit			
8082	AROCLOR 1016	mg/kg	0.055 UJ	0.048 U	0.049 U
8082	AROCLOR 1221	mg/kg	0.055 UJ	0.048 U	0.049 U
8082	AROCLOR 1232	mg/kg	0.055 UJ	0.048 U	0.049 U
8082	AROCLOR 1242	mg/kg	0.055 UJ	0.048 U	0.049 U
8082	AROCLOR 1248	mg/kg	2.4 J	3.5 J	0.51
8082	AROCLOR 1254	mg/kg	0.43 J	0.75 J	0.1
8082	AROCLOR 1260	mg/kg	0.055 UJ	0.048 U	0.049 U
8082	Total PCBs (Sum of Detections)	mg/kg	2.83	4.25	0.61

Notes:

bss = Below sediment surface

ID = Identification

J = Estimated result

mg/kg = Milligram per kilogram

NA = not applicable

PCB = Polychlorinated biphenyl

U = Undetected at specified reporting limit

UJ = Undetected at specified estimated reporting limit

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-01	PSTC-SA1A-02	PSTC-SA1A-03	PSTC-SA1A-04	PSTC-SA1A-05	PSTC-SA1A-06	PSTC-SA1A-07
		Field Sample ID	PSTC-SA1A-01-102213	PSTC-SA1A-02-102213	PSTC-SA1A-03-102213	PSTC-SA1A-04-102213	PSTC-SA1A-05-102213	PSTC-SA1A-06-102213	PSTC-SA1A-07-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BARIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	COBALT	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	IRON	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	LEAD	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
7471B	MERCURY	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	NICKEL	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SILVER	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	SODIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	NA	NA	NA
6010B	ZINC	mg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	NA	NA	NA
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8082	AROCLOR 1016	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	186 U
8082	AROCLOR 1221	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	186 U
8082	AROCLOR 1232	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	186 U
8082	AROCLOR 1242	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	186 U
8082	AROCLOR 1248	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	186 U
8082	AROCLOR 1254	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	459
8082	AROCLOR 1260	µg/kg	35.1 U	36.9 U	36.2 U	35.9 U	37.2 U	36.3 U	186 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-01	PSTC-SA1A-02	PSTC-SA1A-03	PSTC-SA1A-04	PSTC-SA1A-05	PSTC-SA1A-06	PSTC-SA1A-07
		Field Sample ID	PSTC-SA1A-01-102213	PSTC-SA1A-02-102213	PSTC-SA1A-03-102213	PSTC-SA1A-04-102213	PSTC-SA1A-05-102213	PSTC-SA1A-06-102213	PSTC-SA1A-07-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8082	Total PCBs (Sum of Detections)	µg/kg	0 U	0 U	0 U	0 U	0 U	0 U	459
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-D	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DALAPON	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MCPA	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	NA	NA	NA
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACETONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-01	PSTC-SA1A-02	PSTC-SA1A-03	PSTC-SA1A-04	PSTC-SA1A-05	PSTC-SA1A-06	PSTC-SA1A-07
		Field Sample ID	PSTC-SA1A-01-102213	PSTC-SA1A-02-102213	PSTC-SA1A-03-102213	PSTC-SA1A-04-102213	PSTC-SA1A-05-102213	PSTC-SA1A-06-102213	PSTC-SA1A-07-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	STYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA



Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-01	PSTC-SA1A-02	PSTC-SA1A-03	PSTC-SA1A-04	PSTC-SA1A-05	PSTC-SA1A-06	PSTC-SA1A-07
		Field Sample ID	PSTC-SA1A-01-102213	PSTC-SA1A-02-102213	PSTC-SA1A-03-102213	PSTC-SA1A-04-102213	PSTC-SA1A-05-102213	PSTC-SA1A-06-102213	PSTC-SA1A-07-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANILINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-01	PSTC-SA1A-02	PSTC-SA1A-03	PSTC-SA1A-04	PSTC-SA1A-05	PSTC-SA1A-06	PSTC-SA1A-07
		Field Sample ID	PSTC-SA1A-01-102213	PSTC-SA1A-02-102213	PSTC-SA1A-03-102213	PSTC-SA1A-04-102213	PSTC-SA1A-05-102213	PSTC-SA1A-06-102213	PSTC-SA1A-07-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	FLUORENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISODRIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PARATHION	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHENOL	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PHORATE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRENE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	SAFROLE	µg/kg	NA	NA	NA	NA	NA	NA	NA
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	NA	NA	NA

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-01	PSTC-SA1A-02	PSTC-SA1A-03	PSTC-SA1A-04	PSTC-SA1A-05	PSTC-SA1A-06	PSTC-SA1A-07
		Field Sample ID	PSTC-SA1A-01-102213	PSTC-SA1A-02-102213	PSTC-SA1A-03-102213	PSTC-SA1A-04-102213	PSTC-SA1A-05-102213	PSTC-SA1A-06-102213	PSTC-SA1A-07-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit							
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	NA	NA	NA

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-08	PSTC-SA1A-09	PSTC-SA1A-10	PSTC-SA1A-10	PSTC-SA1A-COMP-01
		Field Sample ID	PSTC-SA1A-08-102213	PSTC-SA1A-09-102213	PSTC-SA1A-10-102213	PSTC-SA1A-10-102213-DP	PREC-SA1A-COMPOSITE-01-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
6010B	ALUMINUM	mg/kg	NA	NA	NA	NA	2700
6010B	ARSENIC	mg/kg	NA	NA	NA	NA	6.06
6010B	BARIUM	mg/kg	NA	NA	NA	NA	46.7
6010B	BERYLLIUM	mg/kg	NA	NA	NA	NA	0.501 U
6010B	CADMIUM	mg/kg	NA	NA	NA	NA	0.479
6010B	CALCIUM	mg/kg	NA	NA	NA	NA	28200
6010B	CHROMIUM	mg/kg	NA	NA	NA	NA	10.3
6010B	COBALT	mg/kg	NA	NA	NA	NA	5.01 U
6010B	IRON	mg/kg	NA	NA	NA	NA	10500
6010B	LEAD	mg/kg	NA	NA	NA	NA	137
6010B	MAGNESIUM	mg/kg	NA	NA	NA	NA	9610
7471B	MERCURY	mg/kg	NA	NA	NA	NA	0.179
6010B	NICKEL	mg/kg	NA	NA	NA	NA	17.5
6010B	POTASSIUM	mg/kg	NA	NA	NA	NA	501 U
6010B	SELENIUM	mg/kg	NA	NA	NA	NA	0.501 U
6010B	SILVER	mg/kg	NA	NA	NA	NA	0.501 U
6010B	SODIUM	mg/kg	NA	NA	NA	NA	501 U
6010B	VANADIUM	mg/kg	NA	NA	NA	NA	7.77
6010B	ZINC	mg/kg	NA	NA	NA	NA	108
8081	4,4'-DDD	µg/kg	NA	NA	NA	NA	38 U
8081	4,4'-DDE	µg/kg	NA	NA	NA	NA	38 U
8081	4,4'-DDT	µg/kg	NA	NA	NA	NA	38 U
8081	ALDRIN	µg/kg	NA	NA	NA	NA	38 U
8081	ALPHA-BHC	µg/kg	NA	NA	NA	NA	38 U
8081	ALPHA-CHLORDANE	µg/kg	NA	NA	NA	NA	38 U
8081	BETA-BHC	µg/kg	NA	NA	NA	NA	38 U
8081	CHLORDANE	µg/kg	NA	NA	NA	NA	380 U
8081	DELTA-BHC	µg/kg	NA	NA	NA	NA	38 U
8081	DIELDRIN	µg/kg	NA	NA	NA	NA	38 U
8081	ENDOSULFAN I	µg/kg	NA	NA	NA	NA	38 U
8081	ENDOSULFAN II	µg/kg	NA	NA	NA	NA	38 U
8081	ENDOSULFAN SULFATE	µg/kg	NA	NA	NA	NA	38 U
8081	ENDRIN	µg/kg	NA	NA	NA	NA	38 U
8081	ENDRIN ALDEHYDE	µg/kg	NA	NA	NA	NA	38 U
8081	ENDRIN KETONE	µg/kg	NA	NA	NA	NA	38 U
8081	GAMMA-BHC (LINDANE)	µg/kg	NA	NA	NA	NA	38 U
8081	GAMMA-CHLORDANE	µg/kg	NA	NA	NA	NA	38 U
8081	HEPTACHLOR	µg/kg	NA	NA	NA	NA	38 U
8081	HEPTACHLOR EPOXIDE	µg/kg	NA	NA	NA	NA	38 U
8081	METHOXYCHLOR	µg/kg	NA	NA	NA	NA	73.8 U
8081	TOXAPHENE	µg/kg	NA	NA	NA	NA	1500 U
8082	AROCLOR 1016	µg/kg	36.2 U	36.2 U	37.8 U	37.4 U	36.9 U
8082	AROCLOR 1221	µg/kg	36.2 U	36.2 U	37.8 U	37.4 U	36.9 U
8082	AROCLOR 1232	µg/kg	36.2 U	36.2 U	37.8 U	37.4 U	36.9 U
8082	AROCLOR 1242	µg/kg	36.2 U	36.2 U	37.8 U	37.4 U	36.9 U
8082	AROCLOR 1248	µg/kg	36.2 U	48.6	65.3	56.8	36.9 U
8082	AROCLOR 1254	µg/kg	36.2 U	36.2 U	37.8 U	37.4 U	36.9 U
8082	AROCLOR 1260	µg/kg	36.2 U	36.2 U	54.3	41	36.9 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-08	PSTC-SA1A-09	PSTC-SA1A-10	PSTC-SA1A-10	PSTC-SA1A-COMP-01
		Field Sample ID	PSTC-SA1A-08-102213	PSTC-SA1A-09-102213	PSTC-SA1A-10-102213	PSTC-SA1A-10-102213-DP	PREC-SA1A-COMPOSITE-01-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8082	Total PCBs (Sum of Detections)	µg/kg	0 U	48.6	119.6	97.8	0 U
8151A	2,4,5-T	µg/kg	NA	NA	NA	NA	9.11 U
8151A	2,4,5-TP (SILVEX)	µg/kg	NA	NA	NA	NA	9.11 U
8151A	2,4-D	µg/kg	NA	NA	NA	NA	9.11 U
8151A	2,4-DB	µg/kg	NA	NA	NA	NA	9.11 UJ
8151A	DALAPON	µg/kg	NA	NA	NA	NA	110 U
8151A	DICAMBA	µg/kg	NA	NA	NA	NA	9.11 U
8151A	DICHLOROPROP	µg/kg	NA	NA	NA	NA	9.11 U
8151A	DINOSEB	µg/kg	NA	NA	NA	NA	54.9 U
8151A	MCPA	µg/kg	NA	NA	NA	NA	2200 U
8151A	MECOPROP	µg/kg	NA	NA	NA	NA	2200 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	NA	NA	NA	NA	9.11 UJ
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,1-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,1-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	NA	NA	NA	NA	10.2 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMID)	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,2-DICHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	NA	NA	NA	NA	10.2 U
8260	1,2-DICHLOROPROPANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.09 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	NA	NA	NA	NA	10.2 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	NA	NA	NA	NA	5.09 U
8260	2-BUTANONE (MEK)	µg/kg	NA	NA	NA	NA	20.4 U
8260	2-HEXANONE	µg/kg	NA	NA	NA	NA	20.4 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	NA	NA	NA	NA	20.4 U
8260	ACETONE	µg/kg	NA	NA	NA	NA	20.4 U
8260	ACROLEIN	µg/kg	NA	NA	NA	NA	102 UJ
8260	ACRYLONITRILE	µg/kg	NA	NA	NA	NA	102 U
8260	ALLYL CHLORIDE	µg/kg	NA	NA	NA	NA	10.2 U
8260	BENZENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	BROMODICHLOROMETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	BROMOFORM	µg/kg	NA	NA	NA	NA	5.09 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	NA	NA	NA	NA	5.09 U
8260	CARBON DISULFIDE	µg/kg	NA	NA	NA	NA	5.09 U
8260	CARBON TETRACHLORIDE	µg/kg	NA	NA	NA	NA	5.09 U
8260	CHLOROBENZENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	CHLORODIBROMOMETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	CHLOROETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	CHLOROFORM	µg/kg	NA	NA	NA	NA	5.09 U
8260	CHLOROMETHANE	µg/kg	NA	NA	NA	NA	5.09 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-08	PSTC-SA1A-09	PSTC-SA1A-10	PSTC-SA1A-10	PSTC-SA1A-COMP-01
		Field Sample ID	PSTC-SA1A-08-102213	PSTC-SA1A-09-102213	PSTC-SA1A-10-102213	PSTC-SA1A-10-102213-DP	PREC-SA1A-COMPOSITE-01-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8260	CHLOROPRENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	DIBROMOMETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	ETHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	5.09 U
8260	ETHYLBENZENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	NA	NA	NA	NA	5.09 U
8260	IODOMETHANE	µg/kg	NA	NA	NA	NA	5.09 UJ
8260	M,P-XYLENE	µg/kg	NA	NA	NA	NA	10.2 U
8260	METHACRYLONITRILE	µg/kg	NA	NA	NA	NA	5.09 U
8260	METHYL METHACRYLATE	µg/kg	NA	NA	NA	NA	5.09 U
8260	METHYLENE CHLORIDE	µg/kg	NA	NA	NA	NA	5.09 U
8260	O-XYLENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	PROPIONITRILE	µg/kg	NA	NA	NA	NA	20.4 U
8260	STYRENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	TETRACHLOROETHENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	TOLUENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	NA	NA	NA	NA	5.09 UJ
8260	TRICHLOROETHENE	µg/kg	NA	NA	NA	NA	5.09 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	NA	NA	NA	NA	5.09 U
8260	VINYL ACETATE	µg/kg	NA	NA	NA	NA	10.2 UJ
8260	VINYL CHLORIDE	µg/kg	NA	NA	NA	NA	5.09 U
8260	XYLENE (TOTAL)	µg/kg	NA	NA	NA	NA	10.2 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	NA	NA	NA	NA	451 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	225 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	225 U
8270	1,3,5-TRINITROBENZENE	µg/kg	NA	NA	NA	NA	7210 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	225 U
8270	1,3-DINITROBENZENE	µg/kg	NA	NA	NA	NA	1490 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	225 U
8270	1,4-NAPHTHOQUINONE	µg/kg	NA	NA	NA	NA	1490 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	NA	NA	NA	NA	2980 U
8270	1-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	1490 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	NA	NA	NA	NA	7210 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	676 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	NA	NA	NA	NA	676 U
8270	2,4-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	676 U
8270	2,4-DIMETHYLPHENOL	µg/kg	NA	NA	NA	NA	676 U
8270	2,4-DINITROPHENOL	µg/kg	NA	NA	NA	NA	1490 U
8270	2,4-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	902 U
8270	2,6-DICHLOROPHENOL	µg/kg	NA	NA	NA	NA	902 U
8270	2,6-DINITROTOLUENE	µg/kg	NA	NA	NA	NA	902 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	NA	NA	NA	NA	1490 U
8270	2-CHLORONAPHTHALENE	µg/kg	NA	NA	NA	NA	225 U
8270	2-CHLOROPHENOL	µg/kg	NA	NA	NA	NA	225 U



Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-08	PSTC-SA1A-09	PSTC-SA1A-10	PSTC-SA1A-10	PSTC-SA1A-COMP-01
		Field Sample ID	PSTC-SA1A-08-102213	PSTC-SA1A-09-102213	PSTC-SA1A-10-102213	PSTC-SA1A-10-102213-DP	PREC-SA1A-COMPOSITE-01-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	85.4
8270	2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	902 U
8270	2-NAPHTHYLAMINE	µg/kg	NA	NA	NA	NA	902 U
8270	2-NITROANILINE	µg/kg	NA	NA	NA	NA	902 U
8270	2-NITROPHENOL	µg/kg	NA	NA	NA	NA	225 U
8270	2-PICOLINE	µg/kg	NA	NA	NA	NA	1490 U
8270	3&4-METHYLPHENOL	µg/kg	NA	NA	NA	NA	1800 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	NA	NA	NA	NA	451 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	NA	NA	NA	NA	1490 U
8270	3-METHYLCHOLANTHRENE	µg/kg	NA	NA	NA	NA	902 U
8270	3-NITROANILINE	µg/kg	NA	NA	NA	NA	902 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	NA	NA	NA	NA	676 U
8270	4-AMINOBIPHENYL	µg/kg	NA	NA	NA	NA	1490 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	225 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	NA	NA	NA	NA	676 U
8270	4-CHLOROANILINE	µg/kg	NA	NA	NA	NA	676 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	NA	NA	NA	NA	225 U
8270	4-NITROANILINE	µg/kg	NA	NA	NA	NA	902 U
8270	4-NITROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	1490 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	NA	NA	NA	NA	1490 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	1490 U
8270	ACENAPHTHENE	µg/kg	NA	NA	NA	NA	105 J
8270	ACENAPHTHYLENE	µg/kg	NA	NA	NA	NA	115
8270	ACETOPHENONE	µg/kg	NA	NA	NA	NA	451 U
8270	ANILINE	µg/kg	NA	NA	NA	NA	1490 U
8270	ANTHRACENE	µg/kg	NA	NA	NA	NA	315 J
8270	BENZIDINE	µg/kg	NA	NA	NA	NA	2980 U
8270	BENZO(A)ANTHRACENE	µg/kg	NA	NA	NA	NA	1390 J
8270	BENZO[A]PYRENE	µg/kg	NA	NA	NA	NA	1340 J
8270	BENZO[B]FLUORANTHENE	µg/kg	NA	NA	NA	NA	2150 J
8270	BENZO[G,H,I]PERYLENE	µg/kg	NA	NA	NA	NA	770 J
8270	BENZO[K]FLUORANTHENE	µg/kg	NA	NA	NA	NA	640 J
8270	BENZYL ALCOHOL	µg/kg	NA	NA	NA	NA	1490 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	NA	NA	NA	NA	451 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	NA	NA	NA	NA	451 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	NA	NA	NA	NA	451 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	NA	NA	NA	NA	316 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	NA	NA	NA	NA	316 U
8270	CARBAZOLE	µg/kg	NA	NA	NA	NA	225 U
8270	CHLOROBENZILATE	µg/kg	NA	NA	NA	NA	1490 U
8270	CHRYSENE	µg/kg	NA	NA	NA	NA	1520 J
8270	DIALATE	µg/kg	NA	NA	NA	NA	1490 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	NA	NA	NA	NA	30.1 U
8270	DIBENZOFURAN	µg/kg	NA	NA	NA	NA	225 U
8270	DIETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	316 U
8270	DIMETHOATE	µg/kg	NA	NA	NA	NA	1490 U
8270	DIMETHYL PHTHALATE	µg/kg	NA	NA	NA	NA	316 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-08	PSTC-SA1A-09	PSTC-SA1A-10	PSTC-SA1A-10	PSTC-SA1A-COMP-01
		Field Sample ID	PSTC-SA1A-08-102213	PSTC-SA1A-09-102213	PSTC-SA1A-10-102213	PSTC-SA1A-10-102213-DP	PREC-SA1A-COMPOSITE-01-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	NA	NA	NA	NA	1490 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	NA	NA	NA	NA	316 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	NA	NA	NA	NA	316 U
8270	DIPHENYLAMINE	µg/kg	NA	NA	NA	NA	451 U
8270	DISULFOTON	µg/kg	NA	NA	NA	NA	1490 U
8270	ETHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	1490 U
8270	FAMPHUR	µg/kg	NA	NA	NA	NA	14900 U
8270	FLUORANTHENE	µg/kg	NA	NA	NA	NA	3000 J
8270	FLUORENE	µg/kg	NA	NA	NA	NA	127 J
8270	HEXACHLOROBENZENE, SVOC	µg/kg	NA	NA	NA	NA	30.1 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	NA	NA	NA	NA	225 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	NA	NA	NA	NA	1490 UJ
8270	HEXACHLOROETHANE	µg/kg	NA	NA	NA	NA	225 U
8270	HEXACHLOROPROPENE	µg/kg	NA	NA	NA	NA	1490 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	NA	NA	NA	NA	772 J
8270	ISODRIN	µg/kg	NA	NA	NA	NA	1490 U
8270	ISOPHORONE	µg/kg	NA	NA	NA	NA	225 U
8270	ISOSAFROLE	µg/kg	NA	NA	NA	NA	1490 U
8270	METHAPYRILENE	µg/kg	NA	NA	NA	NA	1490 U
8270	METHYL METHANESULFONATE	µg/kg	NA	NA	NA	NA	1490 U
8270	METHYL PARATHION	µg/kg	NA	NA	NA	NA	1490 U
8270	NAPHTHALENE, SVOC	µg/kg	NA	NA	NA	NA	116 J
8270	NITROBENZENE	µg/kg	NA	NA	NA	NA	451 U
8270	N-NITROSODIETHYLAMINE	µg/kg	NA	NA	NA	NA	451 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	NA	NA	NA	NA	451 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	NA	NA	NA	NA	451 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	NA	NA	NA	NA	225 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	NA	NA	NA	NA	225 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	NA	NA	NA	NA	451 U
8270	N-NITROSOMORPHOLINE	µg/kg	NA	NA	NA	NA	1490 U
8270	N-NITROSOPIPERIDINE	µg/kg	NA	NA	NA	NA	1490 U
8270	N-NITROSOPYRROLIDINE	µg/kg	NA	NA	NA	NA	225 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	NA	NA	NA	NA	1490 U
8270	O-TOLUIDINE	µg/kg	NA	NA	NA	NA	1490 U
8270	PARATHION	µg/kg	NA	NA	NA	NA	1490 U
8270	PENTACHLOROBENZENE	µg/kg	NA	NA	NA	NA	451 U
8270	PENTACHLORONITROBENZENE	µg/kg	NA	NA	NA	NA	1490 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	NA	NA	NA	NA	676 U
8270	PHENACETIN	µg/kg	NA	NA	NA	NA	1490 U
8270	PHENANTHRENE	µg/kg	NA	NA	NA	NA	1620 J
8270	PHENOL	µg/kg	NA	NA	NA	NA	225 U
8270	PHORATE	µg/kg	NA	NA	NA	NA	1490 U
8270	PRONAMIDE	µg/kg	NA	NA	NA	NA	1490 U
8270	PYRENE	µg/kg	NA	NA	NA	NA	2430 J
8270	PYRIDINE	µg/kg	NA	NA	NA	NA	451 U
8270	SAFROLE	µg/kg	NA	NA	NA	NA	1490 U
8270	SULFOTEPP	µg/kg	NA	NA	NA	NA	1490 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post construction	Post construction	Post construction	Post construction
		Location ID	PSTC-SA1A-08	PSTC-SA1A-09	PSTC-SA1A-10	PSTC-SA1A-10	PSTC-SA1A-COMP-01
		Field Sample ID	PSTC-SA1A-08-102213	PSTC-SA1A-09-102213	PSTC-SA1A-10-102213	PSTC-SA1A-10-102213-DP	PREC-SA1A-COMPOSITE-01-102213
		Sampling Date	10/22/2013	10/22/2013	10/22/2013	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA	NA	NA	NA
Analytical Method	Chemical Name	Unit					
8270	THIONAZIN	µg/kg	NA	NA	NA	NA	1490 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post Construction
		Location ID	PSTC-SA1A-COMP-02	PSTC-SA1A-COMP-03
		Field Sample ID	PREC-SA1A-COMPOSITE-02-102213	PREC-SA1A-COMPOSITE-03-102213
		Sampling Date	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
6010B	ALUMINUM	mg/kg	3240	2880
6010B	ARSENIC	mg/kg	4.88	4.27
6010B	BARIUM	mg/kg	59	53.6
6010B	BERYLLIUM	mg/kg	0.526 U	0.507 U
6010B	CADMIUM	mg/kg	0.661	1.12
6010B	CALCIUM	mg/kg	28800	32800
6010B	CHROMIUM	mg/kg	13.4	17.8
6010B	COBALT	mg/kg	5.26 U	6.5
6010B	IRON	mg/kg	9370	8150
6010B	LEAD	mg/kg	241	186
6010B	MAGNESIUM	mg/kg	7640	13500
7471B	MERCURY	mg/kg	0.221	0.202
6010B	NICKEL	mg/kg	20.8	20.1
6010B	POTASSIUM	mg/kg	526 U	507 U
6010B	SELENIUM	mg/kg	0.526 U	0.507 U
6010B	SILVER	mg/kg	0.526 U	0.507 U
6010B	SODIUM	mg/kg	526 U	507 U
6010B	VANADIUM	mg/kg	8.48	8.6
6010B	ZINC	mg/kg	153	291
8081	4,4'-DDD	µg/kg	37.9 U	38 U
8081	4,4'-DDE	µg/kg	37.9 U	38 U
8081	4,4'-DDT	µg/kg	37.9 U	38 U
8081	ALDRIN	µg/kg	37.9 U	38 U
8081	ALPHA-BHC	µg/kg	37.9 U	38 U
8081	ALPHA-CHLORDANE	µg/kg	37.9 U	38 U
8081	BETA-BHC	µg/kg	37.9 U	38 U
8081	CHLORDANE	µg/kg	379 U	380 U
8081	DELTA-BHC	µg/kg	37.9 U	38 U
8081	DIELDRIN	µg/kg	37.9 U	38 U
8081	ENDOSULFAN I	µg/kg	37.9 U	38 U
8081	ENDOSULFAN II	µg/kg	37.9 U	38 U
8081	ENDOSULFAN SULFATE	µg/kg	37.9 U	38 U
8081	ENDRIN	µg/kg	37.9 U	38 U
8081	ENDRIN ALDEHYDE	µg/kg	37.9 U	38 U
8081	ENDRIN KETONE	µg/kg	37.9 U	38 U
8081	GAMMA-BHC (LINDANE)	µg/kg	37.9 U	38 U
8081	GAMMA-CHLORDANE	µg/kg	37.9 U	38 U
8081	HEPTACHLOR	µg/kg	37.9 U	38 U
8081	HEPTACHLOR EPOXIDE	µg/kg	37.9 U	38 U
8081	METHOXYCHLOR	µg/kg	73.6 U	73.8 U
8081	TOXAPHENE	µg/kg	1490 U	1500 U
8082	AROCLOR 1016	µg/kg	36.8 U	36.9 U
8082	AROCLOR 1221	µg/kg	36.8 U	36.9 U
8082	AROCLOR 1232	µg/kg	36.8 U	36.9 U
8082	AROCLOR 1242	µg/kg	36.8 U	36.9 U
8082	AROCLOR 1248	µg/kg	36.8 U	47.6
8082	AROCLOR 1254	µg/kg	36.8 U	36.9 U
8082	AROCLOR 1260	µg/kg	36.8 U	36.9 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post Construction
		Location ID	PSTC-SA1A-COMP-02	PSTC-SA1A-COMP-03
		Field Sample ID	PREC-SA1A-COMPOSITE-02-102213	PREC-SA1A-COMPOSITE-03-102213
		Sampling Date	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8082	Total PCBs (Sum of Detections)	µg/kg	0 U	47.6
8151A	2,4,5-T	µg/kg	8.54 U	9.2 U
8151A	2,4,5-TP (SILVEX)	µg/kg	8.54 U	9.2 U
8151A	2,4-D	µg/kg	8.54 U	9.2 U
8151A	2,4-DB	µg/kg	8.54 U	9.2 U
8151A	DALAPON	µg/kg	103 U	111 U
8151A	DICAMBA	µg/kg	8.54 U	9.2 U
8151A	DICHLOROPROP	µg/kg	8.54 U	9.2 U
8151A	DINOSEB	µg/kg	51.4 U	55.4 U
8151A	MCPA	µg/kg	2060 U	2220 U
8151A	MECOPROP	µg/kg	2060 U	2220 U
8151A	PENTACHLOROPHENOL, HERB	µg/kg	8.54 U	9.2 U
8260	1,1,1,2-TETRACHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	1,1,1-TRICHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	1,1,2,2-TETRACHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	1,1,2-TRICHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	1,1-DICHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	1,1-DICHLOROETHENE	µg/kg	5.15 U	4.76 U
8260	1,2,3-TRICHLOROPROPANE	µg/kg	5.15 U	4.76 U
8260	1,2,4-TRICHLOROBENZENE, VOC	µg/kg	5.15 U	4.76 U
8260	1,2-DIBROMO-3-CHLOROPROPANE	µg/kg	10.3 U	9.53 U
8260	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	µg/kg	5.15 U	4.76 U
8260	1,2-DICHLOROBENZENE, VOC	µg/kg	5.15 U	4.76 U
8260	1,2-DICHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	1,2-DICHLOROETHENE (TOTAL)	µg/kg	10.3 U	9.53 U
8260	1,2-DICHLOROPROPANE	µg/kg	5.15 U	4.76 U
8260	1,3-DICHLOROBENZENE, VOC	µg/kg	5.15 U	4.76 U
8260	1,3-DICHLOROPROPENE (TOTAL)	µg/kg	10.3 U	9.53 U
8260	1,4-DICHLOROBENZENE, VOC	µg/kg	5.15 U	4.76 U
8260	2-BUTANONE (MEK)	µg/kg	20.6 U	19.1 U
8260	2-HEXANONE	µg/kg	20.6 U	19.1 U
8260	4-METHYL-2-PENTANONE (MIBK)	µg/kg	20.6 U	19.1 U
8260	ACETONE	µg/kg	20.6 U	19.1 U
8260	ACROLEIN	µg/kg	103 U	95.3 U
8260	ACRYLONITRILE	µg/kg	103 U	95.3 U
8260	ALLYL CHLORIDE	µg/kg	10.3 U	9.53 U
8260	BENZENE	µg/kg	5.15 U	4.76 U
8260	BROMODICHLOROMETHANE	µg/kg	5.15 U	4.76 U
8260	BROMOFORM	µg/kg	5.15 U	4.76 U
8260	BROMOMETHANE (METHYL BROMIDE)	µg/kg	5.15 U	4.76 U
8260	CARBON DISULFIDE	µg/kg	5.15 U	4.76 U
8260	CARBON TETRACHLORIDE	µg/kg	5.15 U	4.76 U
8260	CHLOROBENZENE	µg/kg	5.15 U	4.76 U
8260	CHLORODIBROMOMETHANE	µg/kg	5.15 U	4.76 U
8260	CHLOROETHANE	µg/kg	5.15 U	4.76 U
8260	CHLOROFORM	µg/kg	5.15 U	4.76 U
8260	CHLOROMETHANE	µg/kg	5.15 U	4.76 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post Construction
		Location ID	PSTC-SA1A-COMP-02	PSTC-SA1A-COMP-03
		Field Sample ID	PREC-SA1A-COMPOSITE-02-102213	PREC-SA1A-COMPOSITE-03-102213
		Sampling Date	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8260	CHLOROPRENE	µg/kg	5.15 U	4.76 U
8260	CIS-1,3-DICHLOROPROPENE	µg/kg	5.15 U	4.76 U
8260	DIBROMOMETHANE	µg/kg	5.15 U	4.76 U
8260	DICHLORODIFLUOROMETHANE	µg/kg	5.15 U	4.76 U
8260	ETHYL METHACRYLATE	µg/kg	5.15 U	4.76 U
8260	ETHYLBENZENE	µg/kg	5.15 U	4.76 U
8260	HEXACHLOROBUTADIENE, VOC	µg/kg	5.15 U	4.76 U
8260	IODOMETHANE	µg/kg	5.15 U	4.76 U
8260	M,P-XYLENE	µg/kg	10.3 U	9.53 U
8260	METHACRYLONITRILE	µg/kg	5.15 U	4.76 U
8260	METHYL METHACRYLATE	µg/kg	5.15 U	4.76 U
8260	METHYLENE CHLORIDE	µg/kg	5.15 U	4.76 U
8260	O-XYLENE	µg/kg	5.15 U	4.76 U
8260	PROPIONITRILE	µg/kg	20.6 U	19.1 U
8260	STYRENE	µg/kg	5.15 U	4.76 U
8260	TETRACHLOROETHENE	µg/kg	5.15 U	4.76 U
8260	TOLUENE	µg/kg	5.15 U	4.76 U
8260	TRANS-1,2-DICHLOROETHENE	µg/kg	5.15 U	4.76 U
8260	TRANS-1,3-DICHLOROPROPENE	µg/kg	5.15 U	4.76 U
8260	TRANS-1,4-DICHLORO-2-BUTENE	µg/kg	5.15 U	4.76 U
8260	TRICHLOROETHENE	µg/kg	5.15 U	4.76 U
8260	TRICHLOROFLUOROMETHANE	µg/kg	5.15 U	4.76 U
8260	VINYL ACETATE	µg/kg	10.3 U	9.53 U
8260	VINYL CHLORIDE	µg/kg	5.15 U	4.76 U
8260	XYLENE (TOTAL)	µg/kg	10.3 U	9.53 U
8270	1,2,4,5-TETRACHLOROBENZENE	µg/kg	278 U	1100 U
8270	1,2,4-TRICHLOROBENZENE, SVOC	µg/kg	139 U	552 U
8270	1,2-DICHLOROBENZENE, SVOC	µg/kg	139 U	552 U
8270	1,3,5-TRINITROBENZENE	µg/kg	4450 U	17700 U
8270	1,3-DICHLOROBENZENE, SVOC	µg/kg	139 U	552 U
8270	1,3-DINITROBENZENE	µg/kg	917 U	3640 U
8270	1,4-DICHLOROBENZENE, SVOC	µg/kg	139 U	552 U
8270	1,4-NAPHTHOQUINONE	µg/kg	917 U	3640 U
8270	1,4-PHENYLENEDIAMINE	µg/kg	1830 U	7290 U
8270	1-NAPHTHYLAMINE	µg/kg	917 U	3640 U
8270	2,3,4,6-TETRACHLOROPHENOL	µg/kg	4450 U	17700 U
8270	2,4,5-TRICHLOROPHENOL	µg/kg	417 U	1660 U
8270	2,4,6-TRICHLOROPHENOL	µg/kg	417 U	1660 U
8270	2,4-DICHLOROPHENOL	µg/kg	417 U	1660 U
8270	2,4-DIMETHYLPHENOL	µg/kg	417 U	1660 U
8270	2,4-DINITROPHENOL	µg/kg	917 U	3640 U
8270	2,4-DINITROTOLUENE	µg/kg	556 U	2210 U
8270	2,6-DICHLOROPHENOL	µg/kg	556 U	2210 U
8270	2,6-DINITROTOLUENE	µg/kg	556 U	2210 U
8270	2-ACETYLAMINOFLUORENE	µg/kg	917 U	3640 U
8270	2-CHLORONAPHTHALENE	µg/kg	139 U	552 U
8270	2-CHLOROPHENOL	µg/kg	139 U	552 U



Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post Construction
		Location ID	PSTC-SA1A-COMP-02	PSTC-SA1A-COMP-03
		Field Sample ID	PREC-SA1A-COMPOSITE-02-102213	PREC-SA1A-COMPOSITE-03-102213
		Sampling Date	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	2-METHYLNAPHTHALENE, SVOC	µg/kg	321	363
8270	2-METHYLPHENOL	µg/kg	556 U	2210 U
8270	2-NAPHTHYLAMINE	µg/kg	556 U	2210 U
8270	2-NITROANILINE	µg/kg	556 U	2210 U
8270	2-NITROPHENOL	µg/kg	139 U	552 U
8270	2-PICOLINE	µg/kg	917 U	3640 U
8270	3&4-METHYLPHENOL	µg/kg	1110 U	4420 U
8270	3,3'-DICHLOROBENZIDINE	µg/kg	278 U	1100 U
8270	3,3'-DIMETHYLBENZIDINE	µg/kg	917 U	3640 U
8270	3-METHYLCHOLANTHRENE	µg/kg	556 U	2210 U
8270	3-NITROANILINE	µg/kg	556 U	2210 U
8270	4,6-DINITRO-2-METHYLPHENOL	µg/kg	417 U	1660 U
8270	4-AMINOBIPHENYL	µg/kg	917 U	3640 U
8270	4-BROMOPHENYL-PHENYLEETHER	µg/kg	139 U	552 U
8270	4-CHLORO-3-METHYLPHENOL	µg/kg	417 U	1660 U
8270	4-CHLOROANILINE	µg/kg	417 U	1660 U
8270	4-CHLOROPHENYL-PHENYLEETHER	µg/kg	139 U	552 U
8270	4-NITROANILINE	µg/kg	556 U	2210 U
8270	4-NITROPHENOL, SVOC	µg/kg	917 U	3640 U
8270	5-NITRO-O-TOLUIDINE	µg/kg	917 U	3640 U
8270	7,12-DIMETHYLBENZ(A)ANTHRACENE	µg/kg	917 U	3640 U
8270	ACENAPHTHENE	µg/kg	145	474
8270	ACENAPHTHYLENE	µg/kg	209	270
8270	ACETOPHENONE	µg/kg	278 U	1100 U
8270	ANILINE	µg/kg	917 U	3640 U
8270	ANTHRACENE	µg/kg	436	1510
8270	BENZIDINE	µg/kg	1830 U	7290 U
8270	BENZO(A)ANTHRACENE	µg/kg	1720	4200
8270	BENZO[A]PYRENE	µg/kg	1580	3520
8270	BENZO[B]FLUORANTHENE	µg/kg	2370	5250
8270	BENZO[G,H,I]PERYLENE	µg/kg	621	1430
8270	BENZO[K]FLUORANTHENE	µg/kg	859	1530
8270	BENZYL ALCOHOL	µg/kg	917 U	3640 U
8270	BIS(2-CHLOROETHOXY)METHANE	µg/kg	278 U	1100 U
8270	BIS(2-CHLOROETHYL)ETHER	µg/kg	278 U	1100 U
8270	BIS(2-CHLOROISOPROPYL) ETHER	µg/kg	278 U	1100 U
8270	BIS(2-ETHYLHEXYL) PHTHALATE	µg/kg	195 U	773 U
8270	BUTYL BENZYL PHTHALATE	µg/kg	195 U	773 U
8270	CARBAZOLE	µg/kg	182	552 U
8270	CHLOROBENZILATE	µg/kg	917 U	3640 U
8270	CHRYSENE	µg/kg	1550	4360
8270	DIALATE	µg/kg	917 U	3640 U
8270	DIBENZ[A,H]ANTHRACENE	µg/kg	227	503
8270	DIBENZOFURAN	µg/kg	171	552 U
8270	DIETHYL PHTHALATE	µg/kg	195 U	773 U
8270	DIMETHOATE	µg/kg	917 U	3640 U
8270	DIMETHYL PHTHALATE	µg/kg	195 U	773 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post Construction
		Location ID	PSTC-SA1A-COMP-02	PSTC-SA1A-COMP-03
		Field Sample ID	PREC-SA1A-COMPOSITE-02-102213	PREC-SA1A-COMPOSITE-03-102213
		Sampling Date	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	DIMETHYLAMINOAZOBENZENE	µg/kg	917 U	3640 U
8270	DI-N-BUTYL PHTHALATE	µg/kg	195 U	773 U
8270	DI-N-OCTYL PHTHALATE	µg/kg	195 U	773 U
8270	DIPHENYLAMINE	µg/kg	278 U	1100 U
8270	DISULFOTON	µg/kg	917 U	3640 U
8270	ETHYL METHANESULFONATE	µg/kg	917 U	3640 U
8270	FAMPHUR	µg/kg	9170 U	36400 U
8270	FLUORANTHENE	µg/kg	2950	8410
8270	FLUORENE	µg/kg	163	570
8270	HEXACHLOROBENZENE, SVOC	µg/kg	18.5 U	73.6 U
8270	HEXACHLOROBUTADIENE, SVOC	µg/kg	139 U	552 U
8270	HEXACHLOROCYCLOPENTADIENE	µg/kg	917 U	3640 U
8270	HEXACHLOROETHANE	µg/kg	139 U	552 U
8270	HEXACHLOROPROPENE	µg/kg	917 U	3640 U
8270	INDENO[1,2,3-CD]PYRENE	µg/kg	650	1440
8270	ISODRIN	µg/kg	917 U	3640 U
8270	ISOPHORONE	µg/kg	139 U	552 U
8270	ISOSAFROLE	µg/kg	917 U	3640 U
8270	METHAPYRILENE	µg/kg	917 U	3640 U
8270	METHYL METHANESULFONATE	µg/kg	917 U	3640 U
8270	METHYL PARATHION	µg/kg	917 U	3640 U
8270	NAPHTHALENE, SVOC	µg/kg	414	582
8270	NITROBENZENE	µg/kg	278 U	1100 U
8270	N-NITROSODIETHYLAMINE	µg/kg	278 U	1100 U
8270	N-NITROSODIMETHYLAMINE	µg/kg	278 U	1100 U
8270	N-NITROSO-DI-N-BUTYLAMINE	µg/kg	278 U	1100 U
8270	N-NITROSODI-N-PROPYLAMINE	µg/kg	139 U	552 U
8270	N-NITROSODIPHENYLAMINE	µg/kg	139 U	552 U
8270	N-NITROSOMETHYLETHYLAMINE	µg/kg	278 U	1100 U
8270	N-NITROSOMORPHOLINE	µg/kg	917 U	3640 U
8270	N-NITROSOPIPERIDINE	µg/kg	917 U	3640 U
8270	N-NITROSOPYRROLIDINE	µg/kg	139 U	552 U
8270	O,O,O-TRIETHYLPHOSPHOROTHIOATE	µg/kg	917 U	3640 U
8270	O-TOLUIDINE	µg/kg	917 U	3640 U
8270	PARATHION	µg/kg	917 U	3640 U
8270	PENTACHLOROBENZENE	µg/kg	278 U	1100 U
8270	PENTACHLORONITROBENZENE	µg/kg	917 U	3640 U
8270	PENTACHLOROPHENOL, SVOC	µg/kg	417 U	1660 U
8270	PHENACETIN	µg/kg	917 U	3640 U
8270	PHENANTHRENE	µg/kg	1900	5940
8270	PHENOL	µg/kg	139 U	552 U
8270	PHORATE	µg/kg	917 U	3640 U
8270	PRONAMIDE	µg/kg	917 U	3640 U
8270	PYRENE	µg/kg	2540	6770
8270	PYRIDINE	µg/kg	278 U	1100 U
8270	SAFROLE	µg/kg	917 U	3640 U
8270	SULFOTEP	µg/kg	917 U	3640 U

Table I-4  
SA1-A Post-Construction Soil Sampling Results  
Portage Creek Area Site  
Kalamazoo, Kalamazoo County, Michigan

		Location Description	Slope Area 1A	Slope Area 1A
		Location Type	Post construction	Post Construction
		Location ID	PSTC-SA1A-COMP-02	PSTC-SA1A-COMP-03
		Field Sample ID	PREC-SA1A-COMPOSITE-02-102213	PREC-SA1A-COMPOSITE-03-102213
		Sampling Date	10/22/2013	10/22/2013
		Depth Interval (inches bss)	NA	NA
Analytical Method	Chemical Name	Unit		
8270	THIONAZIN	µg/kg	917 U	3640 U

Notes:  
µg/kg = Microgram per kilogram  
ID = Identification  
J = Estimated result  
mg/kg = Milligram per kilogram  
NA = Not analyzed or applicable  
PCB = Polychlorinated biphenyl  
SVOC = Semivolatile organic compound  
U = Undetected at specified reporting limit  
UJ = Undetected at specified estimated reporting limit  
VOC = Volatile organic compound

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**ATTACHMENT I-A**  
**PHOTOGRAPHIC DOCUMENTATION**

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**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 1

**Direction:** West

**Subject:** Preparation for setup and pre-excavation sampling

**Date:** 4-16-2013

**Photographer:** Mike Browning



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 2

**Direction:** South

**Subject:** Grubbing and debris clearing on east and west banks

**Date:** 8-13-2013

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 3

**Date:** 8-14-2013

**Direction:** Not applicable (NA)

**Photographer:** Dustin Bates

**Subject:** City boardwalk being dismantled to allow discharge piping access



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 4

**Date:** 8-13-2013

**Direction:** West

**Photographer:** Dustin Bates

**Subject:** Bypass pumping setup





**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 5  
**Direction:** Northwest  
**Subject:** Access and gate at Harrison Street entrance

**Date:** 8-13-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 6  
**Direction:** South  
**Subject:** Discharge piping installation

**Date:** 8-16-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 7

**Date:** 9-11-2013

**Direction:** South

**Photographer:** Dustin Bates

**Subject:** Timber matting laid in creek to allow access for excavation activities



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 8

**Date:** 9-12-2013

**Direction:** South

**Photographer:** Dustin Bates

**Subject:** Excavation of Grids 1, 2, and 3





**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 9

**Direction:** East

**Subject:** Excavated sediment loaded onto a track dump

**Date:** 9-11-2013

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 10

**Direction:** South

**Subject:** Restoration activities

**Date:** 9-12-2013

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 11  
**Direction:** South  
**Subject:** Restoration activities

**Date:** 9-13-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 12  
**Direction:** South  
**Subject:** Restoration activities

**Date:** 9-19-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 13

**Direction:** North

**Subject:** Restoration activities

**Date:** 9-20-2013

**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A

**Photograph No.:** 14

**Direction:** Southeast

**Subject:** After excavation and backfilling activities

**Date:** 10-7-2013

**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 15  
**Direction:** South  
**Subject:** Restoration completed

**Date:** 10-7-2013  
**Photographer:** Dustin Bates



**Site:** Allied Portage Creek Slope Area - SA1-A  
**Photograph No.:** 16  
**Direction:** North  
**Subject:** Removal of downstream sheet-pile cofferdam

**Date:** 10-8-2013  
**Photographer:** Dustin Bates





**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 17  
**Direction:** North  
**Subject:** Removal of bypass pumps

**Date:** 10-10-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 18  
**Direction:** South  
**Subject:** View of completed restoration

**Date:** 10-16-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 19  
**Direction:** North  
**Subject:** View of completed restoration

**Date:** 10-15-2013  
**Photographer:** Dustin Bates



**Site:** Portage Creek Area Site - SA1-A  
**Photograph No.:** 20  
**Direction:** Southeast  
**Subject:** Reconstruction of city boardwalk

**Date:** 10-18-2013  
**Photographer:** Dustin Bates

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**APPENDIX J**  
**COMMAND POST / JOHN ST STAGING AREA PHOTOGRAPHIC LOG**

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**Site:** Portage Creek Area Site – John Street Staging Area  
**Photograph No.:** 1  
**Direction:** East  
**Subject:** Soil pile at the eastern end of the staging area

**Date:** 8/31/11  
**Photographer:** Brett Coulter



**Site:** Portage Creek Area Site  
**Photograph No.:** 2  
**Direction:** West  
**Subject:** Soil pile at the eastern end of the staging pile

**Date:** 8/31/11  
**Photographer:** Brett Coulter



**Site:** Portage Creek Area Site

**Photograph No.:** 3

**Date:** 8/31/11

**Direction:** South

**Photographer:** Brett Coulter

**Subject:** Soil sampling at soil pile at the eastern end of staging area



**Site:** Portage Creek Area Site

**Photograph No.:** 4

**Date:** 8/31/11

**Direction:** East

**Photographer:** Brett Coulter

**Subject:** ERRS contractor collecting a soil sample from soil pile at eastern end of staging area





**Site:** Portage Creek Area Site

**Photograph No.:** 5

**Direction:** North

**Subject:** ERRS contractor collecting a soil sample from ground that will comprise staging area

**Date:** 8/31/11

**Photographer:** Brett Coulter



**Site:** Portage Creek Area Site

**Photograph No.:** 6

**Direction:** East

**Subject:** Placement of gravel between Site trailers

**Date:** 9/27/11

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site

**Photograph No.:** 7

**Date:** 9/30/11

**Direction:** Southwest

**Photographer:** Michael Browning

**Subject:** ERRS worker using a trenching machine to create trench for placing silt fencing



**Site:** Portage Creek Area Site

**Photograph No.:** 8

**Date:** 9/30/11

**Direction:** East

**Photographer:** Michael Browning

**Subject:** ERRS worker installing silt fencing along southern edge of Site



**Site:** Portage Creek Area Site

**Photograph No.:** 9

**Direction:** Southwest

**Date:** 10/3/11

**Photographer:** Michael Browning

**Subject:** State of staging area as of October 3, 2011



**Site:** Portage Creek Area Site

**Photograph No.:** 10

**Direction:** Southwest

**Date:** 10/3/11

**Photographer:** Michael Browning

**Subject:** ERRS bulldozer operator smoothing berm of staging pad





**Site:** Portage Creek Area Site

**Photograph No.:** 11

**Direction:** East

**Subject:** Construction fencing and silt fencing along southern perimeter of Site

**Date:** 10/3/11

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 12

**Direction:** South

**Subject:** Bulldozer grading the floor of staging pad at the JSSA

**Date:** 10/4/11

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site  
**Photograph No.:** 13  
**Direction:** North  
**Subject:** Excavation for sump in staging area

**Date:** 10/7/11  
**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site  
**Photograph No.:** 14  
**Direction:** Southeast  
**Subject:** JSSA sump area filled with rain water

**Date:** 10/20/11  
**Photographer:** Marc Wahrer





**Site:** Portage Creek Area Site

**Photograph No.:** 15

**Direction:** Southeast

**Subject:** JSSA sump area filled with rain water

**Date:** 10/28/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site

**Photograph No.:** 16

**Direction:** Southeast

**Subject:** Installation of geotextile fabric at the JSSA

**Date:** 10/28/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site

**Photograph No.:** 17

**Direction:** East

**Subject:** Geotextile fabric with sandbags and weights to hold it down

**Date:** 10/28/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site

**Photograph No.:** 18

**Direction:** Southwest

**Subject:** Liner installation at eastern end of the JSSA

**Date:** 11/1/11

**Photographer:** Marc Wahrer





**Site:** Portage Creek Area Site

**Photograph No.:** 19

**Direction:** Southeast

**Subject:** Liner installation at eastern end of the JSSA

**Date:** 11/1/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site

**Photograph No.:** 20

**Direction:** South

**Subject:** Liner installation seam sealing

**Date:** 11/1/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site

**Photograph No.:** 21

**Direction:** East

**Subject:** Sycamore trees along Portage Creek

**Date:** 11/1/11

**Photographer:** Marc Wahrer



**Site:** Portage Creek Area Site

**Photograph No.:** 22

**Direction:** Southeast

**Subject:** JSSA after placement of backfill sand

**Date:** 11/16/11

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 23

**Date:** 3/27/12

**Direction:** West

**Photographer:** Michael Browning

**Subject:** ERRS workers laying geoweb material in staging area



**Site:** Portage Creek Area Site

**Photograph No.:** 24

**Date:** 4/2/12

**Direction:** North

**Photographer:** Michael Browning

**Subject:** John Street staging pad with geoweb material partially laid





**Site:** Portage Creek Area Site

**Photograph No.:** 25

**Direction:** East

**Subject:** State of the JSSA on April 12, 2012

**Date:** 4/12/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 26

**Direction:** Northwest

**Subject:** Fulton truck dumping a load of sediment onto staging pad located at staging pad

**Date:** 5/4/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 27

**Direction:** Northwest

**Subject:** ERRS operator loading sediment into a dump truck for hauling to landfill

**Date:** 5/24/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 28

**Direction:** East

**Subject:** EPA mobile WWTP

**Date:** 5/31/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 29

**Date:** 7/11/12

**Direction:** East

**Photographer:** Michael Browning

**Subject:** Blue hose in foreground releasing water that originated from Axtell Creek



**Site:** Portage Creek Area Site

**Photograph No.:** 30

**Date:** 7/11/12

**Direction:** Northeast

**Photographer:** Michael Browning

**Subject:** ERRS driver using water truck for dust suppression





**Site:** Portage Creek Area Site

**Photograph No.:** 31

**Direction:** Northeast

**Subject:** ERRS driver moving sediment on staging pad

**Date:** 7/23/12

**Photographer:** Hilary Verduce



**Site:** Portage Creek Area Site

**Photograph No.:** 32

**Direction:** Southeast

**Subject:** ERRS representative collecting a water sample from on-site water treatment plant

**Date:** 7/26/12

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 33

**Direction:** South

**Subject:** ERRS operator loading TSCA sediment into a dump truck for off-site disposal

**Date:** 8/16/12

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site

**Photograph No.:** 34

**Direction:** North

**Subject:** ERRS worker power washing tires of a dump truck before truck leaves Site

**Date:** 8/16/12

**Photographer:** Sean Kane





**Site:** Portage Creek Area Site

**Photograph No.:** 35

**Date:** 9/13/12

**Direction:** East

**Photographer:** Michael Browning

**Subject:** ERRS driver using a street sweeper to clean concrete at staging area



**Site:** Portage Creek Area Site

**Photograph No.:** 36

**Date:** 10/26/12

**Direction:** North

**Photographer:** Michael Browning

**Subject:** Pumping of staging area sump water into a vacuum truck



**Site:** Portage Creek Area Site

**Photograph No.:** 37

**Date:** 4/4/13

**Direction:** North

**Photographer:** Michael Browning

**Subject:** DataRAM air monitoring location 1 at perimeter of JSSA



**Site:** Portage Creek Area Site

**Photograph No.:** 38

**Date:** 4/4/13

**Direction:** South

**Photographer:** Michael Browning

**Subject:** DataRAM air monitoring location 2 at perimeter of the JSSA





**Site:** Portage Creek Area Site

**Photograph No.:** 39

**Direction:** North

**Subject:** DataRAM air monitoring location 3 at perimeter of JSSA

**Date:** 4/4/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 40

**Direction:** North

**Subject:** DataRAM air monitoring location 4 at perimeter of JSSA

**Date:** 4/4/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 41

**Direction:** North

**Subject:** DataRAM air monitoring location 5 at perimeter of JSSA

**Date:** 4/4/13

**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 42

**Direction:** Southeast

**Subject:** DataRAM air monitoring location 6 at perimeter of JSSA

**Date:** 4/4/13

**Photographer:** Michael Browning





**Site:** Portage Creek Area Site  
**Photograph No.:** 43  
**Direction:** West  
**Subject:** EPA's mobile WWTP

**Date:** 4/8/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site  
**Photograph No.:** 44  
**Direction:** East  
**Subject:** Overview of the JSSA

**Date:** 4/11/13  
**Photographer:** Michael Browning



**Site:** Portage Creek Area Site

**Photograph No.:** 45

**Direction:** West

**Subject:** Dismantlement and removal of John Street staging pad

**Date:** 10/30/13

**Photographer:** Sean Kane



**Site:** Portage Creek Area Site

**Photograph No.:** 46

**Direction:** West

**Subject:** Regrading and dismantlement of the John Street staging pad

**Date:** 11/4/13

**Photographer:** Sean Kane