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# REGION 5 RAC2

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## REMEDIAL ACTION CONTRACT FOR

Remedial, Enforcement Oversight, and  
Non-Time Critical Removal Activities at Sites of Release  
or Threatened Release of Hazardous Substances in Region 5

### DATA SUMMARY REPORT

#### Site Characterization

#### **Eighteenmile Creek Area of Concern**

Niagara County, New York

WA No. 051-RICO-1527/Contract No. EP-S5-06-01

March 2011

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PREPARED FOR

U.S. Environmental Protection Agency



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PREPARED BY

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Ecology and Environment, Inc.

Environmental Design International, Inc.

Teska Associates, Inc.

FOR OFFICIAL USE ONLY

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**DATA SUMMARY REPORT**  
**EIGHTEENMILE CREEK AREA OF CONCERN**  
**Niagara County, New York**  
**Site Characterization**  
**WA No. 051-RICO-1527/Contract No. EP-S5-06-01**  
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# Acronyms and Abbreviations

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|         |                                                          |
|---------|----------------------------------------------------------|
| °C      | - degrees Celsius                                        |
| %D      | - percent difference                                     |
| AOC     | - Area of Concern                                        |
| ATL     | - Atlantic Testing Laboratories, Inc.                    |
| AVS/SEM | - acid volatile sulfides/simultaneously extracted metals |
| bgs     | - below ground surface                                   |
| Bonner  | - Bonner Analytical Testing                              |
| BUI     | - Beneficial use impairment                              |
| Cape    | - Cape Fear Analytical                                   |
| CCB     | - continuing calibration blank                           |
| CCV     | - continuing calibration verification                    |
| CLP     | - Contract Laboratory Program                            |
| COC     | - chain of custody                                       |
| CROL    | - contract required quantitation limit                   |
| DCB     | - decachlorobiphenyl                                     |
| DUSR    | - data usability summary reports                         |
| E & E   | - Ecology and Environment, Inc.                          |
| EEEP    | - Ecology and Environment Engineering, P.C.              |
| EDD     | - electronic deliverable                                 |
| ESAT    | - Environmental Services Assistance Team                 |
| FS      | - feasibility study                                      |
| FSP     | - field sampling plan                                    |
| GC/MS   | - gas chromatography/mass spectrometry                   |
| GLLA    | - Great Lakes Legacy Act                                 |

|        |                                                           |
|--------|-----------------------------------------------------------|
| GLNPO  | - Great Lakes National Program Office                     |
| GPS    | - Global Positioning System                               |
| GIS    | - Geographical Information System                         |
| ICP    | - inductively coupled plasma                              |
| ICS    | - interference check sample                               |
| IDL    | - instrument detection limit                              |
| IJC    | - International Joint Commission                          |
| KAP    | - KAP Technologies                                        |
| LCS    | - laboratory control sample                               |
| µg/kg  | - micrograms per kilogram                                 |
| mg/kg  | - milligrams per kilogram                                 |
| MDL    | - method detection limit                                  |
| MS/MSD | - matrix spike/matrix spike duplicate                     |
| NCSWCD | - Niagara County Soil and Water Conservation District     |
| NYS    | - New York State                                          |
| NYSDEC | - New York State Department of Environmental Conservation |
| PAH    | - polynuclear aromatic hydrocarbon                        |
| PCB    | - polychlorinated biphenyl                                |
| PCOC   | - potential constituents of concern                       |
| PCT    | - Project Coordination Team                               |
| PDOP   | - Positional Dilution of Precision                        |
| PID    | - photoionization detector                                |
| ppm    | - parts per million                                       |
| PQL    | - practical quantitation limit                            |
| PVC    | - polyvinyl chloride                                      |
| QA/QC  | - quality assurance/quality control                       |
| QAPP   | - quality assurance project plan                          |

|       |                                                    |
|-------|----------------------------------------------------|
| RAP   | - Remedial Action Plan                             |
| RAC   | - Remedial Action Committee                        |
| ROD   | - record of decision                               |
| RPD   | - relative percent difference                      |
| SDG   | - sample delivery group                            |
| SMO   | - sample management office                         |
| SOW   | - Scope of Work                                    |
| SPDES | - State Pollutant Discharge Elimination System     |
| SVOC  | - semivolatile organic compounds                   |
| TA    | - TestAmerica, Burlington                          |
| TAGM  | - Technical and Administrative Guidance Memorandum |
| TAL   | - target analyte list                              |
| TCDD  | - 2,3,7,8-tetrachlorodibenzo-p-dioxin              |
| TCL   | - target compound list                             |
| TCLP  | - toxicity characteristic leaching procedure       |
| TEQ   | - toxic equivalent                                 |
| TOC   | - total organic carbon                             |
| USACE | - United States Army Corps of Engineers            |
| USGS  | United States Geological Survey                    |
| USEPA | - United States Environmental Protection Agency    |
| VOC   | - volatile organic compound                        |

# Distribution List

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All versions of this plan will be distributed to the project coordination team or as noted below.

| Report              | Description                                                          | Revision | Date Sent  |
|---------------------|----------------------------------------------------------------------|----------|------------|
| Data Summary Report | Presents the data collected for Site Characterization Investigation. | 1        | March 2011 |



# Introduction

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This data summary report summarizes the site characterization investigation at the Eighteenmile Creek Area of Concern (AOC). Eighteenmile Creek is located in Niagara County in western New York State. The Eighteenmile Creek AOC addressed under this investigation includes Olcott Harbor and extends upstream through the city of Lockport to the New York State (NYS) Barge Canal (see Figure 1-1). The effort was performed for the United States Environmental Protection Agency's (USEPA's) Great Lakes National Program Office (GLNPO) in accordance with the Scope of Work (SOW) for Work Assignment No. 051-RICO-1527 Contract No. EP-S5-06-01. CH2M HILL and their team contractor, Ecology and Environment-Engineering, P.C. (EEEP) implemented the investigation to collect the data that will be used in the alternatives evaluation process and the development of the feasibility study (FS).

The Eighteenmile Creek Great Lakes Legacy Act (GLLA) Project Coordination Team (PCT) includes GLNPO, the Niagara County Soil and Water Conservation District (NCSWCD), the New York State Department of Environmental Conservation (NYSDEC), the United States Army Corps of Engineers (USACE), and USEPA Region 2.

## 1.1 Project Location

Eighteenmile Creek flows through central Niagara County, New York, from its headwaters in the city of Lockport to its discharge to Lake Ontario in Olcott, New York. Eighteenmile Creek has two branches (East and West) immediately north of the Barge Canal in Lockport, New York. Waters from the East Branch originate from a culverted section of the creek south of the Barge Canal that is supplemented by water flowing through a spillway in the Barge Canal south wall into an underlying tunnel near the Mill Street Bridge. The waters from the West Branch originate from the dry dock on the north side of the Barge Canal and flow north toward Clinton Street. Waters from the East and West Branch converge on the south side of Clinton Street and flow under Clinton Street to the Mill Pond on the north side of Mill Street. The waters from Eighteenmile Creek eventually discharge to Lake Ontario in Olcott, New York (located approximately 15 miles north of the city of Lockport).

Eighteenmile Creek is surrounded by six residential townships. The land within Eighteenmile Creek watershed consists primarily of croplands and orchards, with residential, commercial, and industrial areas located around Lockport, Newfane, and Olcott Harbor. The investigation area is primarily in a rural/residential area. The creek within the AOC is used extensively for fishing, boating, and recreation.

The potential contaminant sources include the canal, historically industrialized areas of Lockport, and the Lockport wastewater treatment plant. The Burt and Newfane dams may serve as areas where contaminated sediments accumulate in the creek.

## 1.2 Project Background

The Eighteenmile Creek Remedial Action Plan (RAP) was prepared by NYSDEC and the Eighteenmile Creek Remedial Action Committee (RAC) in 1997. The RAP was prepared in response to a recommendation by the Water Quality Board of the International Joint

Commission (IJC) that RAPs be prepared for the 43 AOCs identified within the Great Lakes basin, including the Eighteenmile Creek AOC. The NCSWCD is the Eighteenmile Creek RAP Coordinator, having assumed management of the RAP in 2005 with funding support from the USEPA's GLNPO. The NCSWCD has been involved in investigative and remedial activities and public education/outreach activities within communities affected by the Eighteenmile Creek AOC.

Investigations completed in the 1980s and 1990s indicated that the sediments of Eighteenmile Creek and within the AOC may be contaminated with polychlorinated biphenyls (PCBs). PCBs are factors in restrictions on fish and wildlife consumption, bird and animal deformities, or reproductive problems and degradation of benthos. A surface sediment sample collected in 1994 from Olcott Harbor contained PCBs at a concentration greater than the NYSDEC guidance for screening of contaminated sediments. Ten of 15 fish flesh samples from the creek contained PCBs at levels above the U.S. Food and Drug Administration action level of 2.0 milligrams per kilogram (mg/kg). Sediment samples collected during NYSDEC investigations in the upstream portion of the creek (Flintkote Site) contained PCBs at 49 mg/kg (TVGA 2005).

A beneficial use impairment (BUI) investigation was conducted in 2007 to determine whether Eighteenmile Creek is impaired in regard to existence of fish tumors and other deformities; status of fish and wildlife populations; and status of bird or mammal deformities or reproductive impairment. A wide range of data was collected from Eighteenmile Creek and a similar background stream, Oak Orchard Creek, and the data from the two creeks were compared. The data collected for this investigation suggest that bird and amphibian populations at Eighteenmile Creek are not impaired, but that fish and mammal populations likely are. The possible impairment of fish and mammal populations results from high levels of PCBs in fish. Whole-body concentrations of Aroclors 1248, 1254, and 1260 and total PCBs were an order of magnitude greater in brown bullheads from Eighteenmile Creek compared with the levels in brown bullheads from Oak Orchard Creek (E & E 2009). Whole-body concentrations of dioxins/furans (expressed as the 2,3,7,8-tetrachlorodibenzo-p-dioxin [TCDD] toxic equivalent [TEQ]) in bullheads from Eighteenmile Creek were approximately five times greater than in bullheads from Oak Orchard Creek.

Sources and potential sources of PCBs to Eighteenmile Creek have been identified as industrial and municipal wastewater discharges, combined sewer overflows, inactive hazardous waste sites, the New York Barge Canal discharge, contaminated sediments already present in the creek, and an unknown source between Olcott Street and North Transit Road. Extensive progress to reduce sources to the creek has been made by monitoring discharges and updating State Pollutant Discharge Elimination System (SPDES) permits for industrial and municipal wastewater dischargers and addressing inactive hazardous waste sites. NYSDEC has divided the site into the Flintkote Site and the Eighteenmile Creek Corridor site. NYSDEC has prepared a record of decision (ROD) for the Flintkote site (NYSDEC 2006b). NYSDEC conducted a remedial investigation of the Corridor site in August of 2005 (NYSDEC 2006a) and performed follow-up investigations in 2007 and 2008 (NYSDEC 2006a and EEEPC 2007 and 2009). NYSDEC has prepared a proposed plan for the corridor site and expects a ROD to be issued in 2010.

Under contract to the NCSWD, Ecology and Environment, Inc. (E & E) performed the PCB trackdown study (E & E 2007). PCB screening was conducted on grab samples from 80 locations between Harwood Street and Stone Road (8,000 feet), including east of the confluence between Gulf Creek and Eighteenmile Creek and an unmapped drainage on the west side of Eighteenmile Creek. Approximately 2,000 feet of creek within this section was not investigated because minimal sediment was present and there were safety concerns related to the steep

gradient of the creek and high flow velocities off the Niagara Escarpment. PCBs were detected in 54 of the samples at concentrations ranging from 59 to 4,300 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). In addition, three samples at various depths from a total of 12 cores were collected and submitted to an analytical laboratory to confirm PCB screening levels. A comparison of PCB screening to confirmation results indicates the screening results need to be increased by 40 percent to be consistent with the confirmation results. The PCB concentrations in the core samples ranged from 12 to 69,000  $\mu\text{g}/\text{kg}$  and were not detected in only six of the samples.

The results indicate that PCBs are present in sediment at concentrations exceeding the screening criteria throughout the Eighteenmile Creek AOC. The core sample results show a general decrease in PCB concentrations with depth and that PCBs were not detected in samples from the native material in the creek bed. The PCB concentrations were relatively consistent except in areas close to the Flintkote property and in the area near the intersection of Old Niagara and Plank Road. The data suggest the potential for an additional source of PCBs in an area north of the wastewater plant.

The surface samples from all 12 cores also were analyzed for select metals. The concentrations of metals were relatively uniform throughout the study area and were similar to or exceeded the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 standards. The results indicate that metals continue to be a source of concern and should be evaluated relative to background concentrations in other areas.

While numerous sediment investigations have been conducted in the vicinity of the canal, throughout Lockport, and downstream of Burt Dam, additional data are needed to develop a conceptual model of the existing physical and chemical conditions throughout the Eighteenmile Creek AOC. Prior to the site characterization presented herein, a reconnaissance survey was completed in winter 2008 and spring 2009 (CH2M HILL, Inc. and EEEPC 2009a) to investigate site access, identify areas of sediment deposition and measure sediment thickness, and map sensitive habitats, other areas of potential ecological significance (e.g., wetlands, floodplains, cattail marshes), point discharges, and other features that could affect future sediment sampling activities. During the planning of the reconnaissance survey, digital information from the 2005 aerial image of the creek and historic sampling areas were loaded into the global positioning system (GPS) and used to divide Eighteenmile Creek into smaller investigation areas based on the geography of the creek and the existing data. The creek was divided into five segments that required different levels of investigation. The reconnaissance survey focused on the area from Burt Dam south to Lockport, an area where there is little historical data. The first phase of the reconnaissance survey was conducted in a 9.4-mile stretch of the creek just north of Ide Road upstream of Stone Road. This stretch of the creek is relatively isolated and little information has been developed on habitats, stream channel conditions, or sediment characteristics. In addition, a bathymetric sediment thickness survey of the Burt Dam impoundment area was performed by Aqua Survey in June 2008 over the 1.5 miles from the dam upstream to north of Ide Road. In the fall 2009, a supplemental reconnaissance survey was performed in areas not previously visited (the southern portion of Reach 6 and northern portion of Reach 7).

The reconnaissance survey findings were used to develop the strategy and approach for the sampling and analysis program for evaluating the nature and extent of contamination in the AOC. In order to facilitate the investigation, the overall physical and channel substrate characteristics of the creek, as observed during the first phase of the reconnaissance survey, were used to divide the creek into reaches (see Figure 1-2). The survey results were used to develop the Site Characterization Field Sampling Plan (FSP) and the Quality Assurance Project Plan (QAPP; Appendix A of the FSP), which defined the overall scope to characterize the nature and extent of potential constituents of concern (PCOC) in the sediments of the Eighteenmile

Creek AOC (see CH2M HILL and EEEPC 2009b). Review of the initial site characterization results led to a revision of the FSP to include additional data collection (see CH2M HILL and EEEPC 2010).

## 1.3 Project Purpose and Objectives

The purpose of the site characterization was to evaluate the nature and extent of contamination in the sediments throughout the AOC, focusing on the unevaluated area between the city of Lockport and the Burt Dam. This data will be used to develop a conceptual model of the existing physical and chemical conditions to develop remedial alternatives for the creek sediment.

The objectives of this site characterization were to collect data to:

- Evaluate the horizontal and vertical extent of sediment contamination of selected PCOCs (PCBs and metals) within and adjacent to the creek.
- Determine total organic carbon (TOC) of sediment to correlate PCB concentrations to percent organic carbon.
- Evaluate concentrations of PCOCs in upstream locations in major tributaries to the creek to identify other potential sources and establish background conditions.
- Evaluate ecologically significant chemicals (e.g., PCB congeners and acid volatile sulfides/simultaneously extracted metals [AVS/SEM]) in the surface sediment to determine the bioavailability of PCOCs.
- Evaluate the potential for historic contamination to have been transported to wetlands or historic (e.g., relict) creek channels during past flooding events.
- Evaluate the potential sources of additional chemicals previously detected in the sediment (e.g., pesticides and polynuclear aromatic hydrocarbons [PAHs]) and establish the correlation of these other chemicals with the PCOCs.
- Evaluate the geotechnical characteristics of the sediment materials.

Review of the initial site characterization creek core samples indicated that additional data were needed to achieve the project objectives and support project decisions. The field program was modified to include collection of additional data to:

- Evaluate the extent of PCBs and metals in the sediment depositional areas in shallow water reaches of the creek and establish whether the contamination can be attributable to upstream sources in Lockport.
- Evaluate concentrations of PCBs and metals in upstream tributaries to the creek (especially East Branch tributary and Gulf Creek tributary) to identify other potential sources and establish background conditions.
- Evaluate the potential sources of PAHs and establish the extent of contamination.
- Evaluate AVS/SEM in areas where elevated metals concentrations exist to determine the bioavailability of metals.
- Evaluate whether large volumes of highly impacted sediment exist that would require special management during remediation.

- Estimate the volume of contaminated creek sediment upstream from Burt Dam to the New York State Barge Canal

The sampling approach designed to meet these objectives is presented in the FSP and subsequent revisions (CH2M HILL and EEEPC 2009b and 2010). This report provides a summary of the sample results and includes a discussion of analytical results and usability of the data. Section 2 summarizes the field sampling activities; Section 3 summarizes the results of the sample analysis and data validation as well as potential data usability issues; and Section 4 provides detailed tables of validated analytical data. Appendices include the supporting data including Sediment Core Logs (Appendix A); Daily Summary Forms and Field Audit Forms (Appendix B); Photographs (Appendix C); GPS Forms (Appendix D); Data Usability Summary Reports (Appendix E); Electronic Data Files (Appendix F); and Analytical Data Reports (TestAmerica Buffalo and TestAmerica Burlington only; Appendix G).

# Field Investigation

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CH2M HILL's team subcontractor, EEEPC, led the field investigation and the data management. The different analyses were conducted by laboratories in USEPA's Contract Laboratory Program (CLP), the USEPA Region 5 Central Regional Laboratory (CRL), and independent laboratories procured by CH2M HILL. Vibracore sampling was conducted by Atlantic Testing Laboratories Inc. (ATL). The field program also utilized two flat-bottomed boats owned by EEEPC. The site characterization activities focused on Reaches 2, 3, 4, 5, 6, and 7 and were conducted during four separate field mobilizations.

The project included six primary activities as described below.

## 2.1 Planning and Mobilization Activities

A FSP and QAPP were prepared by the CH2M HILL and EEEPC team in November 2009 to implement the field investigation. The FSP/QAPP presented the proposed sampling locations, field methodology, and the analytical program. These documents were revised in June 2010 to include additional field activities identified during review of the sampling results from November and December 2009.

Prior to initiation of each sampling effort, mobilization and planning activities were conducted to facilitate the field investigation. These activities included identification of access locations, potential hazards/obstacles, field support equipment, supplies, and facilities; as well as procurement of required field equipment and supplies. To coordinate access with property owners and to notify the public of the planned field activities, the local non-federal sponsor (RAP Coordinator at the NCSWCD) was notified of the field schedule. Detailed geographic information system (GIS) field maps showing the sampling locations were prepared, the GPS units were configured with field data forms and aerial images showing the planned sampling locations, and the equipment and supplies were mobilized to the field site. Field sample and laboratory information were entered into the Forms II Lite® database.

## 2.2 Field Sampling Program

The field activities were conducted in phases and included:

- The additional 2-day reconnaissance survey initiated on October 19, 2009
- An initial hand-coring sampling effort in November and December 2009
- Vibracore sampling in May 2010
- A sediment thickness and bankfull survey in November 2010
- A data gap investigation in June and July 2010.

Tables 2-1a through 2-1c list the sample types, quantities, and analyses for the three sampling efforts. Table 2-2 outlines the purpose and location of the data gap samples. Modifications to the locations are summarized in Table 2-3. Table 2-4 summarizes results of the sediment

thickness survey. Sample locations are shown in Figures 2-1 through 2-7. Samples were prioritized to ensure that the higher priority samples were collected first.

The field program consisted of collecting sediment and soil samples to conduct chemical and particle size analyses needed to meet the project's objectives. Analyses were conducted by the laboratories listed in Section 2.4. The 2009 and 2010 hand-coring and the 2010 sediment thickness and bankfull survey program were conducted utilizing two flat-bottom boats, operated by the EEEPC field team. Samples were collected using various methods to provide necessary sample volumes for each analytical suite. The May 2010 deep sediment sampling program was conducted by ATL and consisted of collecting vibracore samples using a self-propelled drilling platform and pontoon boat. Vibracore collection was augmented by surface sediment sample collection using a petite Ponar dredge, to ensure collection of adequate sediment volume for each analytical suite.

During sample collection, the coordinates of each sample location were recorded using a handheld GPS unit. The GPS data and digital photographs were downloaded daily and the field sampling information was entered into Forms II Lite® database at the end of each sampling day. Sediment cores collected for chemical and grain size analyses were classified using the United States Geological Survey's (USGS) Soil Classification System and described on a standardized sediment core log form. At each core location, a continuous lithologic description, sediment depth (to the nearest tenth of a foot) to refusal (bedrock or native material), description of the bottom of core, core recovery, depth intervals sampled, and visual/olfactory observations were recorded. The percent recovery was also estimated and recorded. Creek water depths were also measured either using a graduated steel rod or tape measure. Information was recorded using a combination of the GPS unit, field notebooks, sediment core log forms, and digital photography. The sediment core logs are provided in Appendix A.

The site characterization field effort (November/December 2009 and May 2010) included collection and analysis of a total of 402 samples (a total of 104, including five duplicates, hand-core sediment and surface soil samples in November/December 2009 and a total of 298, including 13 duplicates, vibracore and Ponar dredge samples in May 2010). The June/July 2010 data gap investigation included collection and analysis of a total of 126 field samples including seven field duplicates. Samples were labeled, packaged, and shipped according to procedures outlined in the FSP and associated QAPP. Field activities were performed in accordance with the approved FSP and subsequent revisions (CH2M HILL and EEEPC 2009b and 2010). The detailed methodologies and specific goals of each of the sampling activities are described in Section 3 of the FSP (CH2M HILL and EEEPC 2009b). Deviations from the plans, including total number of samples, sample locations, and sampling procedures, occurred as a result of field conditions and are summarized in Section 2-8 of this report. Daily forms summarizing the day's activities and field changes were completed by the field team leader and distributed the form to the appropriate recipients (see Appendix B). Analytical test results are discussed in Section 4 of this report. Photographs of the activities and sampling locations are included on a compact disk as Appendix C.

### **2.2.1 2009/2010 Initial Sediment and Surface Soil Sampling**

The November/December 2009 field sampling effort consisted of collection of 83 sediment samples (main creek channel and tributaries from Reaches 4, 6, and 7), and 21 soil samples from historic channels and wetlands along Reaches 3, 4, 5, 6, and 7 (see Table 2-1a). Sampling activities started on November 16, 2009 and were completed on December 2, 2009. Sampling activities were performed Monday through Friday with a few exceptions. Field operations

were suspended on Friday November 20, 2009 due to unsafe, elevated water levels in the creek resulting from continuous rain on November 19 and the draining of the canal. Work resumed on Monday November 23, 2009. Due to the Thanksgiving holiday, sampling was not performed on November 26 and 27, 2009. Field activities were also suspended on December 1, 2009, due to extreme cold conditions and expected snowfall; the activities resumed and were completed on December 2, 2009.

During the November/December 2009 sampling effort, sediment samples were collected via hand-coring. All but one core were collected by advancing a clear polyvinyl chloride (PVC) sleeve into the sediment by hand via a pushing and twisting motion. One core (R4-119-T) was driven using a manual slide hammer to advance a 2.25-inch Geoprobe Macrocore barrel lined with a clear PVC sleeve. At each coring location within the main creek channel, one composite sample was collected from top of sediment to refusal; representing the entire sediment column. As described in the FSP, when refusal was reached, the remaining empty portion of the acetate sleeve was topped with water and the sleeve was capped. The sleeve was then slowly removed from the sediment resulting in the collected core. The water was then decanted and the sediment was extracted logged, and composited for sampling.

The deeper areas behind Burt Dam and Newfane Dam (Reaches 2, 3, and 5) were sampled in May 2010 by ATL using vibracore sampling technology and Ponar samplers (see Table 2-1b). These sampling activities started on May 17, 2010, and were completed on May 27, 2010. Sampling activities were performed Monday through Friday with the exception of vibracore vessel mobilization.

Vibracore sampling was conducted at all locations with two exceptions. Due to shallow water that prohibited vibracore vessel access, two sample locations (R3-019-V and R5-039-V) were accessed by jon boat and cored by hand following procedures similar to the November/December 2009 procedures. Surface and subsurface samples were collected from the sediment cores. At each coring location, initial probing was performed to measure water depth. Following water depth measurement, a grab surface sample was collected from the top 0 to approximately 1 foot using a petite Ponar dredge. After surface sediment sample collection was completed, a Rossfelder P-3 electrical vibracore collection system mounted to a winch was used to collect cores. The operator lowered the core barrel loaded with dedicated 4-inch clear polycarbonate liners to the top of the sediment, started the vibracoring system, and cored into the sediment to refusal. At 28 vibracore locations, surface sediment subsamples -Z1a (0 to 0.5 feet from the top of sediment) and -Z1b (0.5 to 1 feet from the top of sediment) were collected via vibracore in addition to the -Z1 or -Z1P Ponar sample. At eight locations, the top 1 foot of sediment was not readily differentiated, so a single surface sample was collected via vibracore (-Z1 from the 0-to1-foot-interval). At these locations, a Ponar surface sample -Z1P was collected from the same interval. At two locations (R5-039-V and R5-045-V) a single Z1 sample (0-to-1-foot interval) was collected.

Upon reaching refusal, the vibracore head and barrel were retracted from the sediment, the apparatus was placed on the boat, and a cap was secured on the bottom-end of the liner. The barrel was then removed from the head and excess water was decanted, the liner was removed from the core barrel, and a second cap was placed on the other end of the liner. The liner was then cut open, the core was screened with a photo ionization detector (PID), the sediment lithology was logged by the field geologist, and the depth of vibracore penetration and PID readings were recorded in the logbook. The sampling location and/or the core were photographed and the appropriate sample interval was collected for analysis.

These site characterization sample locations were chosen to be representative of the sample deposition zones. Based on the expected areas of sediment deposition and thickness, the



targeted sampling frequency was one sample location per 500 feet of depositional area in Reach 4; one sample location per 200 feet of depositional area in Reach 6; and one sample per 100 feet of depositional area in Reach 7. Sampling in Reaches 3 and 5 was performed at an approximately 600-foot spacing.

The sample locations by reach are briefly described below.

- Reach 2 consists of the Burt Dam impoundment and the historic stream channel that was flooded after installation of the dam. A total of 15 coring locations were sampled in Reach 2 via vibracore in May 2010 (see Figure 2-1).
- Reach 3 is also characterized by the historic stream channel that was flooded after the installation of the dam. Large sediment deposits have formed where the swift moving upstream creek flows into the upper portion of the impoundment area and the flow velocities drop quickly. Surface soil samples were collected from Reach 3 during the initial November/December 2009 hand-coring effort. Sediment samples from a total of 12 coring locations were also collected during the May 2010 vibracoring effort. Additionally, four surface soil sample locations (0 to 6 inches below ground surface [bgs]) were sampled in November 2009 from the surrounding marsh and forested wetland areas (see Figure 2-2).
- Reach 4 is relatively swift moving and includes comparatively fewer sediment depositional areas, with shallower thicknesses. Samples were collected from Reach 4 during the initial November/December 2009 hand-coring effort. Eleven coring locations were sampled in the main creek channel in areas where sediment were deposited due to obstructions or decrease in flow velocities and one in a tributary to the main creek channel. Three surface soil samples (0 to 6 inches bgs) were also collected from a relict creek channel (one sample) and the forested wetland areas and marshes near Ide Road (two samples; see Figure 2-3).
- Reach 5 consists of the impoundment area behind Newfane Dam and includes deep water and thick sediment. The investigation for this impoundment area was based on the existence of outfalls that may have contributed contaminants in addition to PCBs as well as the potential for the dam to be removed in the future and included surface and subsurface sediment characterization. Samples were collected from a total of 12 locations during the May 2010 vibracoring effort. Five surface soil locations were also sampled in November 2009, including one location in a relict creek channel and four in marsh areas and wetlands adjacent to the creek (see Figure 2-4).
- Reach 6 is characterized by limited access, relatively shallow sediment deposition areas, and higher flow velocities. Two historic creek channels and one forested wetland where sediment might have been deposited during historic overbank flooding are found in Reach 6. Samples were collected from Reach 6 during the initial November/December 2009 hand-coring effort. A total of 19 coring locations were sampled in main channel areas where sediment was observed or near obstructions or upstream and downstream of tributaries (see Figures 2-5a and 2-5b). Additionally, a total of three surface soil samples (0 to 6 inches bgs) were collected, including two samples from historic creek channels and one sample from a wetland adjacent to this reach.
- Reach 7 is characterized by limited access and large stretches of slowly moving water and high sediment deposition. The 1-mile stretch investigated as part of the PCB trackdown study (E & E 2007a) required less sampling than the other areas of the creek, but included sampling from floodplains and near drainage areas not previously

sampled and a “hot spot” sample near Plank Road. Samples collected from Reach 7 included hand-coring at 39 main channel locations including areas of deep sediments near obstructions and outfalls and near the “hot spot” (one in the area where the hot spot was observed and one in the downstream side of Stone Road; see Figures 2-6a through 2-6d). Six tributaries were also sampled during this investigation. Additionally, six surface soil samples (0 to 6 inches bgs) were collected from historic creek channels (five samples) and a wetland adjacent to this reach (one sample).

### 2.2.2 2010 Data Gap Sampling Locations

An additional hand-core sampling effort was conducted to address data gaps in Reaches 4, 6, and 7 (see Table 2-1c). This effort took place Monday through Friday between June 21 and July 2, 2010.

The findings of the November and December 2009 and May 2010 sampling indicated that since depositional zones are present throughout the creek bed in Reaches 6 and 7, targeting specific depositional zones may not yield a representative sample population. The average distance between the 2009 sample points was 556 feet for Reach 4; 1,041 feet for Reach 6; and 505 feet for Reach 7. Sample locations were added in areas with large distances between sample locations (i.e., greater than 500 feet) to provide better coverage. The new locations reduced the variability in the distances between samples and decreased the distance between samples to below 500 feet for these reaches. The final average distance between points is summarized below:

| <b>Average Distance Between Samples</b> |               |
|-----------------------------------------|---------------|
| <b>Reach</b>                            | <b>(feet)</b> |
| 2                                       | 511           |
| 3                                       | 149           |
| 4                                       | 256           |
| 5                                       | 186           |
| 6                                       | 372           |
| 7                                       | 286           |

A total of 9 Reach 4, 28 Reach 6, and 34 Reach 7 new locations were sampled to better define the extent of contamination, confirm previously detected high concentrations of PCOCs, and identify additional potential contaminant sources. In addition to sample locations in the main creek channel, sampling locations were added upstream in the East Branch and Gulf Creek to establish background conditions as well as evaluate potential sources. Data gap sample collection locations are also shown on Figures 2-2 through 2-7. Table 2-2 presents a detailed list of the additional locations and their purpose.

Sample locations were chosen near previous samples exhibiting higher PAH (R6-055-C) and metal (R6-052-C) concentrations as well as near potential sources not related to upstream areas in Lockport (i.e., multi-use industrial facility south of Ide Road in Reach 4). Additionally, wherever possible, new extent sample locations were selected to be downstream of near outfalls or drainage areas.

Confirmation samples were selected to be located near samples with significant levels of PCBs and lead. Location selection also took into account difference between concentrations in adjacent samples where elevated concentrations were observed (i.e., samples near R6-052-C, R6-055-C, R7-73-C, R7-89-C, R7-88-C, and near Stone Road).

Upon arriving at the general coring location, field teams evaluated at least 100 feet upstream and downstream to determine the area with highest sediment deposition. Unlike previous

investigations, cores were also taken above the current water elevation if the area was clearly a depositional zone. If any planned locations were modified in the field, the rationale for these changes was recorded in the logbook.

The data gap sediment sampling included collection of surface sediment samples (representing the top 0.5 feet of sediment) as well as core composite samples from surface to refusal, to evaluate contamination within the thicker sediment deposits. Specifically, at coring locations where the top sediment layer was clearly distinguished, the surface sample were collected from the top 0.5 foot portion of the core and the remaining core material was composited for the subsurface sample (0.5 feet to refusal). At coring locations where sediment layering was not clearly observed (e.g., in areas where the sediment was too soft to preserve layering within the core), the surface sample was collected using a petite Ponar or AMS Ekman Dredge and the entire core was composited (surface to refusal) for the subsurface sample. At locations where total sediment thickness was less than 1 foot, a single sample was collected from the entire core.

### 2.2.3 2010 Sediment Thickness Survey and Bankfull Delineation

The presence of PCB in the 2009/2010 sediment samples in Reaches 4, 6, and 7 will need to be addressed in a feasibility study (FS). Additional physical data will be needed to estimate the volume of the contaminated sediments including bankfull width that can be used as the boundary between sediments and upland soils (assumed limits of remediation). These additional data provided by delineating bankfull width and sediment thickness measurements will be used for the following:

- Verification of the shoreline established using the GIS. The field data will be used as a quality control check of the GIS interpretation of the bankfull width that is based on the 2008 1-foot ground pixel resolution orthophotography.
- Creation of a systematic dataset of sediment thickness. The historic and the Phase 2 data investigations mainly focused on the collecting sediment chemistry data to identify potential sources and define the nature and extent of contamination. A systematic approach to collecting thickness data is needed to estimate the sediment volume that will need to be addressed in the FS.
- Determination of a sediment thickness “bottom” layer and “top” layer. The creek boundary and sediment thickness information will be used to model the volume of sediment present. ArcGIS extension “spatial analyst” will be used in GIS to perform a spatial interpolation of thickness points. The method of interpolation will be “Simple Kriging” – a geostatistical method, which will allow the user to define an acceptable confidence interval.

The delineation of the edge of the bankfull and the sediment thickness measurements was conducted concurrently. A total of 136 transects were surveyed in Reaches 4, 6, and 7 and shallow areas of Reaches 3 and 5. A slight variation of “systematic point sampling” was implemented in the field to collect the additional sediment thickness data. Systematic point sampling uses a regular sampling interval and results in an unbiased and proportionally representative dataset of evenly spaced measurements across the study area. The sediment thickness was measured by probing at an average five locations along each transect including the edges of both banks, at the thalweg or midpoint, at two points between the thalweg and left and right banks. Statistics on sediment thickness, water depth, and creek width by reach as measured during the sediment delineation effort are summarized in Table 2-4.

## 2.3 Supporting Data Collection and Data Correction

During hand-core sampling and sediment thickness surveying, hand-held GPS units were used to navigate to the planned sample and thickness locations. During vibracoring, navigation to sample locations was conducted using a GPS unit mounted on the vibracore vessel. Upon arrival, the GPS was used to record the actual field sample location. If field conditions mandated a modification of the sample location, the field adjustment was recorded and the new location was surveyed using the GPS. Handheld GPS data were imported by EEEPC's GIS group, checked for accuracy, converted to appropriate units, and then exported to the Equis® database. Vibracore GPS data were reduced by ATL and then exported to the Equis® database. The handheld GPS data collection is described below. As defined in the FSP, a locational data checklist and metadata recording form was filled out for each hand-held GPS unit used for this project (see Appendix D). Additionally, a GPS Daily Check Form was completed each day of GPS data collection (see Appendix D). Throughout the field collection day, when those conditions were not met, the GPS receiver provided warnings and sample collection stopped until the receiver was reset. Data collection included horizontal coordinates only, with attributes documented in the field through a customized script developed specifically for this project. In general, three times each day, the nearest known, fixed structure was surveyed as a reference location (e.g., bridge, road crossing). Occasionally, when the crew remained in the creek for the entire field day and did not encounter fixed structures that would be appropriate for use as reference locations, only two reference points were surveyed.

During collection and mapping GPS points, certain anomalies can occur that may affect the resulting final data. Although weather (atmospheric disturbances) may be the most common cause of GPS data discrepancies, there are other factors that can have an effect as well. For this project, most likely causes of inaccurate readings (Signal Reflection) were tree canopy cover and the geometry and morphology of the creek channel. These factors include areas where the height of the banks is 25 to 30 feet (potentially hindering communication between the GPS unit and satellites) and areas of drastic elevation change such as bridges (since the GPS unit assumes the user is on flat, solid ground, the immediately adjacent elevation changes associated with a feature like a bridge do not allow the GPS unit to perform with its optimum accuracy).

Field personnel utilized Trimble GeoXH Handheld GPS devices to capture highly accurate GIS data. Data were transferred and differentially corrected using the GPS software upon returning to the office and assessed for accuracy. GPS data underwent GPS correction and quality control by a GIS analyst. With the use of GPSCorrect Extension for ArcPad, the GeoXH is capable of providing real-time subfoot (less than 30 centimeters [cm]) accuracy after post-processing. Additionally, ArcPad 8.0 GPS preference settings allow the user to specify data capture rules for the GPS receiver. Each GPS Receiver was set to average 10 points per location, taking only readings with a maximum Positional Dilution of Precision (PDOP) of 6.5, and with a minimum elevation of 13°.

Most data points taken during the Eighteenmile Creek surveys had an accuracy of 3- to 50 cm or better. Approximately 1% of the data had accuracy in the 2- to 5-meter range. Of this 1%, the decrease in accuracy can be explained by a sudden spike in PDOP (not to exceed 6.5%), and/or temporary signal deflection. This can occur when taking readings near large object (i.e., building), within dense canopy cover or rough terrain.

Attribute and photo-interpreted data were also checked in the office by field crew personnel for accuracy. This quality check included cross checks between logbook entries and GPS notes and review of the mapped locations using photo-interpreted data. These data then were used to revise the sampling location maps. For this project, four sample points were adjusted to

represent actual sampling locations. These sample points were: R6-058-C, R7-089-C, R7-090-C, and R7-093-C. The original and adjusted coordinates of these points are presented in Table 2-3.

## 2.4 Analytical Program

Previous investigations indicated that the chemicals detected in Eighteenmile Creek sediment include PCBs, Target Analyte List (TAL) metals, dioxins, pesticides, and PAHs. A hierarchical approach was assigned to the bulk chemical sampling locations. Prior to each of the sampling efforts, the analytical suite for the samples underwent evaluation before consensus on the analyses listed in Tables 2-1a, 2-1b, and 2-1c was reached. Because historical data indicate that PCBs and metals are the primary PCOCs, all the sediment and soil samples were analyzed, at a minimum, for PCBs as Aroclor mixtures and TAL metals. TOC and grain size analysis were also performed on the majority of the samples.

### 2.4.1 2009/2010 Initial Sediment and Surface Soil Sampling

All November/December 2009 sediment and soil samples were analyzed for target compound list (TCL) semivolatile organic compounds (SVOCs) PAH only, TOC, and grain size analysis, in addition to PCB and TAL metal analysis. Representative portion of samples (43 percent) were also analyzed for SVOCs and pesticides. Additional sample volume was collected from each sample location for temporarily storage for future PCB congener, AVS/SEM, and dioxin analysis. The AVS/SEM analysis gives an indication of the acute toxicity to wildlife that is located in the river. If the molar ratio of AVS to SEM is less than one, there is a lower toxic effect on the biota. If this ratio is greater than one, there is a higher probability of it being toxic to biota. Approximately 28 percent of the samples were analyzed for AVS/SEM to assess the bioavailability of the metals. Approximately 31 percent of the samples were analyzed for PCB congeners to allow correlation between Aroclor and PCB congeners for the determination of total PCBs. Four of the 99 samples were also submitted for TCLP metals analysis. For purposes of this phase of the investigation, with the exception of the tributary samples, the whole core composite samples (i.e., the entire core sediment was homogenized and then sub-sampled for the required analyses) were considered equivalent to a single (grab) sediment sample. All the samples collected from the sediments within the tributaries were analyzed for the full suite of PCOCs (that includes PCBs as Aroclor mixtures, TAL metals, TOC, grain size, PAH, and pesticides) because the results of these samples will also serve to define background conditions. Sample selection for full suite analysis was based on proximity to outfalls or drainage areas that could have additional contamination sources or locations where anomalies were observed during site reconnaissance.

The following laboratories performed the required chemical and geotechnical analyses of the 2009 sediment and soil samples:

- A4 Scientific (USEPA CLP Laboratory): Organic chemical analyses.
- Chemtech Consulting Group (Chemtech) (USEPA CLP Laboratory): Inorganic chemical analyses.
- SGS (USEPA CLP Laboratory): 2009 PCB congener analysis.
- TestAmerica (TA), Burlington (TA Burlington) (under subcontract to CH2M HILL): AVS/SEM analysis.
- Region 5 CRL: TOC, grain size, and TCLP.

- TA, Buffalo (TA Buffalo) (under contract to CH2M HILL): Sample archive.

At each vibracore location, multiple distinct depth samples were collected. In cores that the top two half-foot intervals were easily distinguished, two samples were collected from the vibracore from the 0-to-1-foot interval (Z1a and Z1b) for PCBs, TAL metals, and PAHs. In these cases, additional volume was collected from the surface via Ponar (Z1 or Z1P) for TOC, and grain size analysis. At one location (R2-001-V), the Ponar sample was analyzed for PCBs, TAL metals, and PAHs in addition to the grain size and TOC. In cases where the top 1 foot of the core could not be separated into two distinct half-foot layers, a single Z1 sample was collected from the vibracore and an additional Ponar sample was collected from the same location. Both the vibracore and the Ponar samples from the top 1-foot, were analyzed for PCBs, TAL metals, PAHs, grain size, and TOC. All Reach 2 and 3 surface Ponar samples were also analyzed for PCB congeners. In certain Reach 2 and 3 locations, where a surface PCB congener sample was not planned, a second Ponar was collected for the PCB congeners (Z1P2). The remainder of the core was sampled in 1 or 2-foot intervals (as per the FSP) and all subsurface samples were analyzed for PCBs, TAL metals, PAHs, grain size, and TOC. Additional sample volume was collected from each sample for temporary storage for future PCB congener, AVS/SEM (surface samples only), and TCLP metals analysis. Approximately 27 percent of the samples were analyzed for the extended list of PAHs (34 PAHs) instead of the standard list of 16 PAHs. Eight surface samples (approximately 20 percent of the surface sediment samples) were analyzed for AVS/SEM to assess the bioavailability of the metals. In addition to PCB congeners analyses run on the Reach 2 and 3 surface samples, one entire core from each Reach was analyzed for PCB congeners (three locations/17 samples) as well as one Z4 sample (3- to 4-foot interval) from Reach 2 and one from Reach 3. Based on the results of the 2009 sampling, it was determined that pesticide analysis was not necessary for the vibracore samples. Upon review of the metals results, 19 samples (approximately 7.5 %) were identified for TCLP metals analysis. The following laboratories performed the required chemical and geotechnical analyses of the sediment samples:

- KAP Technologies (KAP) (USEPA CLP Laboratory): Organic chemical analysis.
- Bonner Analytical Testing (Bonner) (USEPA CLP Laboratory): Inorganic chemical analysis.
- Cape Fear Analytical (Cape)(USEPA CLP Laboratory): PCB congener analyses.
- Region 5 CRL: 2010 TCLP analysis.
- TA Burlington (under contract to CH2M HILL): 2010 TOC, grain size, and AVS/SEM, analyses.
- TA Buffalo (under contract to CH2M HILL): 2010 sample archive.

#### 2.4.2 Data Gap (June/July 2010) Sediment Sampling

All data gap 2010 sediment samples were analyzed for PAHs, TOC, and grain size analysis, in addition to PCBs and TAL metals. Approximately 30 percent of the data gap sediment samples were submitted for the expanded list of PAHs (34 PAHs) instead of the standard 16 PAHs included in the TCL analysis. Pesticide, AVS/SEM, PCB congener, and TCLP metals analysis was not part of the scope for this phase of the investigation. The required chemical and geotechnical analyses of the data gap sediment samples were performed by the same laboratories that performed the vibracore sample analysis.

The specific media, numbers of samples, and the method requirements for the analyses are discussed in Section 3. The chemical analytical methods, laboratory procedures, and quality

assurance/quality control (QA/QC) procedures are documented in the project QAPP (CH2M HILL and EEEPC 2009b).

## 2.5 Data Management

The data management task consisted of verifying collection and storage of field sample data, developing custody forms, tracking sample analysis, and managing the analytical results. Each day, the data manager was stationed near the reach sampled and was responsible for maintaining a field log. Upon collection of a successful core/sample, the geologists recorded the core information and gave it to the data manager for recording in Forms II Lite®. All field data were managed using Forms II Lite® software as described in the QAPP. The computer record and geological logs are considered the permanent record. Additionally, the data manager entered sample number data and printed sample jar labels and custody forms. Analytical data were managed with the Equis® data management program and finalized in USEPA Region 5 format.

Sample containers were initially labeled using a permanent marker to indicate the sample number, and then placed in coolers with ice. At the end of each day, sample jars were wiped clean and labeled using labels generated by USEPA Forms II Lite database system. All sample handling, transport, and custody procedures were performed as described in the FSP (CH2M HILL and EEEPC 2009b). Core logs and chain-of-custody (COCs) forms were used to document sample collection times, locations, dates, and sampling personnel.

## 2.6 Field Observations

Field activities were recorded in logbooks and core logs and summarized on daily field reports. Copies of the core logs and daily field reports are provided in Appendices A and B.

The following general observations were made during the field investigation (see also photographs provided in Appendix C):

1. At most hand-coring locations in Reaches 4, 6, and 7, sediment consisted of varying amounts of decayed organic material (mostly rootlets, leaves, wood and other vegetative mater) grading into varying proportions of fine sand, silt and clay with occasional fine gravel. Sediment color usually ranged from gray to brown. In most cases stratification was not observed. At some locations, sand or fine gravel were found without sufficient fine-grained sediment to yield an adequate sample. In such cases the surrounding area was surveyed to find a more suitable location for sample collection and the new coordinates were surveyed by GPS and the sample was collected.
2. At most vibracore locations in Reaches 2, 3 and 5, sediment consisted of varying amounts of decayed organic material (mostly rootlets, leaves, wood and other vegetative mater) grading into varying proportions of fine sand, silt and clay with occasional fine gravel. Sediment color usually ranged between gray, brown, and black. At some locations in Reach 5, sediment was not found at the target location, so additional probing was performed to locate sediment in the nearby area, and the coring location was moved to where sediment was found to be deepest. The new coordinates were then surveyed by GPS and the sample was collected.
3. Generally, sediment thickness was found to be the greatest in Reach 2, followed by Reaches 3 and 5. Observations made during sampling are summarized below.

Sediment depth measurements collected during all the field efforts are summarized on Table 2-5.

- a. Reach 2: 5 to 12 feet of sediment recovered at each location with 15 feet of maximum sediment depth observed. Most locations yielded samples that were observed to have an organic odor or sheen.
  - b. Reach 3: 0.9 to 11.5 feet of sediment recovered at each location with 12 feet of maximum sediment thickness measured with a probe. Most locations yielded samples that were observed to have an organic odor.
  - c. Reach 4: 0.2 to 1.55 feet of sediment recovered at each location with 1.8 feet of maximum sediment thickness. Reach 4 is relatively swift moving and includes comparatively fewer sediment depositional areas, with shallower depths.
  - d. Reach 5: 1.9 to 7.5 feet of sediment recovered at each location with a maximum sediment depth of 9 feet.
  - e. Reach 6: 0.5 to 4 feet of sediment recovered at each location with a maximum sediment depth of 5.6 feet measured with a probe. Reach 6 is characterized by limited access, relatively shallow sediment deposition areas, and higher flow velocities.
  - f. Reach 7: 0.3 to 4 feet of sediment recovered at each location with a maximum sediment depth of 4.5 feet measured with a probe.
4. At most Reach 4, 6, and 7 locations, bedrock or clay was observed to be the predominant material underlying sediment. In some cases, varying amounts of cobbles, gravel and sand were observed. Where the hard reddish brown clay was observed underneath the sediment, the boundary was well defined visually and it was also “felt” during sediment thickness measurement.
  5. Bedrock was encountered at nearly all Reach 2, 3, and 5 vibracore locations, as indicated by probing rod, vibracore, or both. Native clay or silt was encountered at 18 locations. At locations R3-019-V and R5-039-V, where ATL performed hand-coring due to inaccessibility by vibracore vessel, refusal type (i.e., bedrock or native clay) could not be determined. Where the hard reddish brown native clay was observed underneath the sediment, the boundary was well defined visually and it was also “felt” during sediment thickness measurement and vibracoring.
  6. Several hand-core samples collected throughout the creek contained a strong organic decay odor. Numerous zones of leaves and other vegetative matter existed along the creek. At some vibracore locations odor described as that of hydrocarbon was detected in the sediment. Disturbance of sediment at several locations, especially in Reach 2, readily produced a sheen (dark blue or rainbow in color) on the surface of the creek, in the core, or in the stainless steel bowl.
  7. During the Spring/Summer 2010 sampling, water depth averaged 17.6 feet in Reach 2, 2.4 feet in Reach 3, 0.8 feet in Reach 4, 3.2 feet in Reach 5, 0.8 feet in Reach 6, and 1.3 feet in Reach 7. Water depth measured during the various field efforts is summarized in Table 2.5.



The following specific observations were made during the initial sediment sample collection via hand-coring (see also photographs provided in Appendix C).

8. Odor described as that of petroleum, hydrocarbon, sulphur, or smoke was detected in the sediment at several locations. Wetland sample R3-110-W, had a potential fuel related odor. Extra material was collected at this location for full suite analysis. Disturbance of sediment at several locations readily produced a sheen (dark blue or rainbow in color) on the surface of the creek. The most pronounced sheen was observed at R6-052-C. This location also produced a strong petroleum-like odor. The source of the material at this location was not readily apparent.
9. Core sample, R7-088-C, was almost black in color and exhibited a strong fuel odor. Additionally as the acetate sleeve was extracted from the sediment, a sheen appeared on the water surface and an oily substance remained on surface of the sleeve.
10. Solid waste including old machinery and appliances were observed on the left descending bank at location R7-077-C.
11. An old 55-gallon open drum was observed in the middle of the creek, an estimated 100 yards upstream from location R7-076-C. No labels or markings were observed, nor could contents be determined.
12. An irrigation pipe that appeared to be used to remove water from the creek was observed approximately 50 feet downstream from point R4-031-C, along the left descending bank.
13. Core sample, R7-089-C, appeared to have metal filings or a similar material in the collected sample. A rainbow sheen also appeared on the sample.
14. At location R6-062-C sediment thickness was greater than what was achievable with the hand-coring method. Total depth to refusal using the probe was at 5.6 feet below the top of the sediment. The sample depth was 3.7 feet of sediment.

The following specific observations were made during the initial sediment sample collection via vibracoring (see also photographs provided in Appendix C).

15. The greatest volume of sediment (greater than 10 feet at some locations) was observed in Reach 2, where deep, slow moving water behind Burt Dam has allowed accumulation of dark gray to black silty sediment.
16. Of 15 cores collected in Reach 2, at least 10 produced sediment with an odor described as organic or that of petroleum or hydrocarbon. Several cores also produced sheen either in the sampled material or on the outside of the core and water surface upon core extraction.
17. Native material was not observed at eight locations in Reach 2.
18. At some locations odor described as that of hydrocarbon was detected in the sediment. Disturbance of sediment at several locations, especially in Reach 2, readily produced a sheen (dark blue or rainbow in color) on the surface of the creek, in the core, or in the stainless-steel bowl.
19. A cable spanning the width of the creek was encountered an estimated 100 feet upstream of Burt Dam, in Reach 2. The cable is in place to warn and prevent boats from approaching too close to the dam.

20. Creek access is very limited in some areas of Reach 2, with bank heights of 25 to 30 feet.
21. Shallow water in Reach 3 at times slowed navigation between sample locations. The Jon boat and drilling platform were launched at Ide Road, in the south end of Reach 3 for all work in Reaches 2 and 3.

The following observations were made during the data gap sediment sample collection (see also photographs provided in Appendix C).

22. General conditions encountered during the June/July 2010 hand-coring effort were similar to those encountered during the initial November/December 2009 hand-coring effort.
23. Strong odor from subsurface sample collected at R6-144-C and R6-146-C caused gagging and coughing.
24. At some locations odor described as that of organic, sweet, pungent, petroleum, hydrocarbon, rancid or fuel-like was detected in the sediment. Disturbance of sediment at several locations readily produced a sheen (gray, blue or rainbow colored) on the surface of the creek.
25. Numerous locations throughout the study area yielded bubbles of suspected swamp gas from the creek bed when walking in the area, advancing or removing the core from the sediment.
26. Possible metal shards or paint chips as well as fragments of shredded rubber were observed in core R7-183-C.
27. A poly 55-gallon drum, was observed in the creek near location R7-198-C. The drum was caught in a tree snag and mostly submerged. Contents could not be determined and the drum was not observed during the initial November/December 2009 hand-coring.
28. A rusty steel drum was observed near location R7-190-C. Contents could not be determined and the drum was not observed during the initial November/December 2009 hand-coring.
29. Dead fish were observed near locations R7-189-C and R7-191-C. The fish were up to a foot long and partially decayed.
30. Trash including bricks and other material and a small, old submerged boat were observed near location R7-193-C.
31. Three plastic drainage pipes were noted extending from the left descending bank, draining into the East Branch near location R7-202-T. The pipes were not flowing upon observation.

The following specific observations were made during the sediment thickness and bankfull delineation (see also photographs provided in Appendix C).

32. A fire-pit was observed immediately adjacent to Transect 27.
33. An oil jug was observed along with garbage on the right descending bank between transects 24 and 25.
34. A 55-gallon drum was observed on the right descending bank between transects 23 and 24.

35. A cattail marsh was observed adjacent to transect 22.
36. A 55-gallon drum was found buried in sediment within transect 5.
37. A split channel due to huge wooden snag at transect T50a was present.
38. A large sediment bank was encountered just downstream of the drainage ditch near transect 51a.
39. An area of high sediment mid-stream at transect 77 was encountered resulting in a co-thalweg.
40. Many wood debris snags and fallen trees on the shoreline throughout the project area.
41. Transects 16-18 were located in riffle areas with bedrock stream bottom.
42. Multiple areas with braided streams and mid channel islands exist.
43. A riparian wetland (old oxbow) with thick sediment deposits was observed on right descending bank adjacent to Transect 82.
44. Reach 4 was mostly riffles and fast moving water.
45. Major in-channel islands were observed at transects T2-T5, T9, T14, T17, T57a, and T68.
46. A low/slow-flow tributary with thick soft sediment was observed between transects 66 and 67.

## 2.7 Variances from the FSP

During the course of the field program, a few deviations from the FSP were made based upon field conditions encountered. All deviations were approved by GLNPO.

### 2.7.1 2009 Initial Sediment and Surface Soil Sampling

1. Due to the non-cohesive nature of the sediment, the lithologic descriptions of the cores in some cases, the core lithologic information was recorded after the sediment was transferred to a stainless-steel bowl and as such, the lithologic information is not stratified but represents the entire core length.
2. Soil sample collection was completed using a hand auger or shovel depending on sample location conditions.
3. At multiple sediment sample locations, the preferred 50 to 60 percent recovery was not achievable due to lack of cohesion of the sediment or due to compression of the soft sediment during core advancement. Additionally, in some cases, leaf litter present at the top of the sediment prevented sediment from entering the sleeve. In such instances, a co-located core was used to provide the required volume. The slam bar technique was also attempted at some of these locations with the same results.
4. At tributary locations R4-119-T, R7-121-T, and R7-124-T, the deeper composite sample (Z2) planned was not collected. Only the surface sample was collected at these locations due to shallow hand-coring refusal (bedrock or native clay or cobbles present throughout the tributary) at 0.5 feet or less.

5. At several locations, large amount of small debris (e.g., rocks, organics, twigs) was observed in the core. In these cases, although care was taken to remove as much as possible before collecting the sample, some debris remained in the sample.
6. Soil sample locations were recorded using a GPS unit during sampling. Therefore, a wooden stake or pin flag were not required to mark the location center point for future surveying.

### 2.7.2 2010 Vibracoring/Ponar Sampling

1. The first transect in Reach 2 was planned to be located approximately 200 feet upstream of the dam in order to avoid the geotextile that, according to Niagara County, extends 80 feet upstream of the dam. However, these sampling locations (R2-001-V, R2-002-V, and R2-003-V) were moved approximately 20 feet south to avoid a safety cable that spanned the width of the creek and anchored to the banks to prevent boats from moving close to the dam.
2. Four coring locations in Reach 3 (R3-016-V, R3-020-V, R3-022-V, and R3-024-V) were moved between five and fifteen feet east or northeast due to shallow (less than 1-foot) water that prevented the drilling platform from accessing the target location.
3. At some locations in Reach 5, sediment was not found at the target location, so additional probing was performed to locate sediment in the nearby area, and the coring location was moved to where sediment was found to be deepest. The new coordinates were then surveyed by GPS and the sample was collected.
4. Coring location R5-039-V was situated adjacent to the west bank, between the main portion of Newfane Dam and a wooden structure situated across the main channel, approximately 100 feet upstream of the main dam. The wooden structure prevented the pontoon boat from accessing the target location, and the initial intent was to use an excavator to suspend the vibracore head and core barrel over the target location and lower the vibracore into the sediment. Probing the area revealed that sediment did not exist in the range of the excavator boom, so ATL probed the area from a flat bottom boat to find a suitable location for core collection. The core was collected 32 feet northeast of the target location. A polycarbonate sleeve was then advanced into the creek bed by hand, to refusal to collect the core.
5. Sample location R5-041-V was situated adjacent to the east bank. Shallow water and a large volume of floating tree limbs and other debris prevented the pontoon boat from moving to the target location, so a mini excavator was used to access the area from the east bank. Soft ground made it necessary to collect the core 86 feet west of the target location. The vibracore head and core barrel were suspended from the excavator boom over the creek channel and were lowered into the sediment to refusal to collect the core.
6. When stratification was observed in the top 1-foot of sediment, the interval was subdivided into 0- to 0.5-foot and 0.5-to 1-foot. These samples were assigned suffix -Z1a and -Z1b respectively. In cores where stratification was not observed in the top 1-foot interval, a sample was collected from both the 0- to 1-foot interval from the core (assigned the suffix -Z1), and a separate sample was collected from a Ponar dredge (assigned the suffix -Z1P).
7. Tree limbs and other debris at coring location R5-040-V made relocation necessary and the core was collected eight feet east of the target location.
8. Original target coordinates for four coring locations in Reach 5 (R5-045-V, R5-046-V, R5-049-V and R5-050-V) were found to be absent of sediment. Probing revealed bedrock and the coring locations were moved between 19 and 34 feet to locate adequate sediment.

### 2.7.3 Data Gap (June/July 2010) Sediment Sampling

1. Most coring locations were moved to locate maximum sediment thickness including. Nine coring locations were sampled in Reach 4, and all locations were relocated to find maximum sediment thickness. Locations were moved in Reach 4 between 9.6 and 80 feet, for an average of 43.4 feet of relocation in Reach 4 to locate maximum sediment.
2. Twenty-eight coring locations were sampled in Reach 6, and 26 locations were relocated to find maximum sediment thickness. Locations were moved in Reach 6 between 15 and 160 feet, for an average of 54.1 feet of relocation in Reach 6 to locate maximum sediment.
3. Thirty-four coring locations were sampled in Reach 7, and 33 locations were relocated to find maximum sediment thickness. Locations were moved in Reach 7 between 15 and 200 feet, for an average of 44.7 feet of relocation in Reach 7.
4. To work as safely as possible and to conserve energy, following completion of coring in Reach 4, sampling teams moved from upstream to downstream.

### 2.7.4 Sediment Thickness and Bankfull Delineation

1. Several transects were added due to the presence of abundant sediment, or braided stream channels, or split stream channels.
2. Several additional points were surveyed along the planned transects either due to large, stream width, or drastic change in streambed topography, or abundance of sediment, or elevated sediment mid-channel dividing thalweg.
3. Locations of 55-gallon drum on bank, 55-gallon drum buried in sediment, firepot, and oil jug were also added to the survey

## Quality Assurance/Quality Control

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All samples were received and analyzed by the laboratory as planned. Table 3-1 provides a summary of the actual samples analyzed for chemistry parameters. Sample results were reviewed and reported as described in the QAPP (CH2M HILL and EEEPC 2009a). For the samples collected in 2009, data validation was performed by the USEPA Region 5 ESAT contractor with the exception of the AVS/SEM data, which were validated by an EEEPC chemist. For the samples collected in 2010, all data validation was performed by EEEPC chemists. The data validation tasks completed for this project include:

**Completeness.** A completeness check was performed on all electronic data deliverables (EDDs) using EarthSoft Equis® 5 Professional software and the data were compared to the hard copy deliverable to verify the data were reported consistently. EEEPC performed a completeness check on all hard copy deliverables to verify that all forms were present and complete.

**Compliance.** The processed EDDs and hardcopy laboratory report were used to verify the data reported were compliant with the QAPP requirements. EEEPC checked the hard copy reports and case narratives, and reviewed sample receipt, chain-of-custody and traffic report records; holding times; percent moisture; field and laboratory QC sample frequencies; initial and continuing instrument calibration and performance check information; case narratives and QC summaries; field and laboratory QC sample results; detection and reporting limits; dilutions; other method-specific criteria, and target compounds. Summaries of the automated data comparison against the CLP National Functional Guidelines criteria were also reviewed, when available. Data usability summary reports (DUSR) were prepared for each sample delivery group (SDG).

- **Reporting.** The validator assigned data qualifiers and flagged all reportable data. For data that was validated by the ESAT contractor, EEEPC used the data qualifiers and flagged electronic deliverable provided by ESAT and generated summary tables of final qualified data.
- **Data Management.** A project-specific database was developed with all validated data stored in Equis® format. The database format allows for upload to the GLNPO Great Lakes Legacy Act database. Data in electronic formats are provided in Appendix F.

The DUSRs document the results of the data review process for all samples and were posted for data users on the project website. The DUSRs are provided electronically in Appendix E. This section provides a summary of the completeness and quality of the data collected and identifies any major issues that may impact data usability. Section 4 presents the results of the analytical program. Appendix G is provided electronically and includes all laboratory reports.

### 3.1 Sampling and Analysis Performed

Tables 2-1a, 2-1b, and 2-1c provide a summary of the samples analyzed for the site characterization and data gap sampling events. A total of 21 surface soil and 507 sediment samples were reviewed and reported. Samples were collected as described in Section 2. Field QC samples were collected including field duplicates, and extra volume for project-specific

matrix spike and matrix spike duplicates (MS/MSDs) were collected at a rate of 5 percent except for 34 PAHs, PCB congeners and TCLP analyses due to limited sample quantities. A summary of the samples collected and the analyses is listed on Table 3-1. QC sample percentages of actual samples are listed on Table 3-2. Samples were divided into SDGs and reported as summarized on Table 3-3. Samples were selected for TCLP metals analysis based on total metals results. The analytical methods reviewed are also summarized in Tables 2-1a through 2-1c.

The samples were sent to one of the laboratories listed in Section 2.4. Sample collection was documented in Forms II Lite and COCs and labels were printed. Samples were analyzed as specified on the COC. Samples were packaged, shipped, and received by the laboratories in good condition at the appropriate temperatures as documented on the Cooler Receipt Forms.

The samples were grouped by the laboratories into SDGs of twenty (or fewer) samples. The SDGs are listed on Table 3-3. Sample identifications were reviewed against the field sampling logs by project personnel. The field sample information was imported into the database and linked to the laboratory data. Table 3-4 correlates the sample IDs shown on the data summary tables to the laboratory raw data.

## 3.2 Laboratory Data Review

The data quality was evaluated based on sample integrity; holding times; percent moisture; initial and continuing instrument calibration and performance checks; laboratory QC sample frequencies and results (method blanks, internal standards, surrogates, matrix spikes and matrix spike duplicates, laboratory control samples, and duplicates); detection and reporting limits; dilutions; and other method-specific criteria. A copy of the summary data package including the case narrative and COC is provided in Appendix G for the data from the subcontracted laboratory. Data summary packages were not provided electronically for the other data. Electronic files from the Sample Management Office (SMO) and Environmental Services Assistance Team (ESAT) contractors and USEPA Region 5 laboratory are not provided in Appendix G for the other data were processed and incorporated into the database. The data usability summary reports (DUSRs) are provided in Appendix E. The following section summarizes the major findings of the data validation for all data.

### 3.2.1 Sample Integrity

Sample integrity is maintained after collection and prior to analysis by the use of specific handling and custody procedures, such as the use of correct bottle types, secondary containment, preservation, and holding times.

#### Review Results

All of the samples for organic and inorganic analyses were received with acceptable integrity, e.g., intact appropriate containers, custody seals intact, and temperatures within criteria.

### 3.2.2 Holding Times

Holding times are established and monitored to ensure analytical results accurately represent analyte concentrations in a sample at the time of collection. Exceeding the holding time for a sample generally results in a loss of the analyte due to a variety of mechanisms, such as deposition on the sample container walls, precipitation, evaporation, or chemical degradation. Holding times are specific to the analytical method and sample type.

## Review Results

All samples submitted for organic and inorganic analyses were extracted and analyzed within the holding times specified by the SOW with the following exceptions:

- For the PAH analyses, several samples in SDG B00L4 were outside primary extraction holding times. Sample results are qualified as estimated and are considered usable for the project.
- For SDG B00Z6 sample B0138RX was reanalyzed for PAH outside primary analysis holding time criteria. Sample results are qualified as estimated and are considered usable for the project.
- The 2010 vibracore samples were analyzed for AVS outside of analytical holding time at the request of the client. Sample results are not qualified and are considered usable for the project.

### 3.2.3 Percent Moisture

Percent moisture for the sediment samples was required to be less than 90% by GLNPO for organic analyses and less than 50 percent according to the USEPA Region 2 CLP validation procedures to report analytical results obtained using soil-and-sediment specific procedures without qualification. The percent moisture (or percent solids) value was also used by the laboratories to calculate and report the analytical results on a dry weight basis.

## Review Results

Most of the samples submitted for organic and inorganic analyses did not require qualification of results based on percent moisture. Several samples analyzed for PCB congeners contained 70 to 90 percent moisture and were qualified by the laboratory with HM (high moisture). All of the samples submitted for organic analyses contained less than 90 percent moisture, and no results were qualified on this basis. The 370 samples that were analyzed for inorganic parameters contained greater than 50 percent moisture, therefore the results for those samples are qualified as estimated. For the 2009 samples submitted for metals analyses, the laboratory repeatedly rounded the % solids values incorrectly; however, the reported sample results were corrected before being loaded into the project database and are considered usable for the project.

### 3.2.4 Instrument Calibration and Performance Checks

Instrument calibration and performance checks are performed using certified and traceable standards to confirm that the instrument is operating correctly. Calibration compounds, concentrations, sequences, and frequencies are method-specific, documented by the laboratory, and the data are provided with the data report. Calibrations are performed and verified prior to analysis of each batch of samples (initial) and periodically during analysis (continuing).

## Review Results

For the PCB congeners analyses a few minor calibration issues related to instrument ion ratios were noted that did not affect quantitation; sample results are not qualified and are considered usable for the project.

For the Aroclors analyses the initial and continuing calibration results were acceptable. For the Aroclors and Pesticides analyses each sample is analyzed on two GC columns and if the percent difference (%D) for the results from both columns exceeds 25 percent, the results are qualified as estimated. In addition, the chromatograms are reviewed to determine whether there are



matrix interferences contributing to the difference and the results are qualified according to the CLP SOW. For the Aroclors analyses for several samples the %D for Aroclors 1248 and 1260 was outside criteria and the samples were qualified as estimated or not detected at the adjusted contract required quantitation limit (CRQL). Sample results are considered usable for the project.

For the PAH analyses the initial and continuing calibration results were acceptable with the following exceptions:

- For SDGs B00L4, B01A0, B01C6, B01D0, B01F2, B01J4, B0167, E0002, E0023, E0042 and E0089 the initial calibration was outside criteria for one or more compounds. Sample results are qualified as estimated and are considered usable for the project.
- For several SDGs the continuing calibration verification was outside criteria for one or more compounds. Sample results are qualified as estimated and are considered usable for the project.

For the pesticides analyses the instrument calibrations and performance checks were within acceptance limits and sample results were not qualified based upon calibration issues with the following exceptions:

- For SDG E0089 the initial calibration was outside criteria for one or more compounds. Sample results are qualified as estimated and are considered usable for the project.
- For SDG E0042 the continuing calibration was outside criteria for one or more compounds. Sample results are qualified as estimated and are considered usable for the project.

Calibrations and performance checks for the inorganic analyses were within acceptance limits and inorganic sample results were not qualified based upon calibration issues.

### 3.2.5 Blanks

Laboratory blank samples were analyzed and evaluated to determine the existence and magnitude of possible contamination during the sampling and analysis process. Analyte concentrations in the blanks are generally below the practical quantitation limit (PQL). If the analyte is present in the sample at similar trace levels, then the analyte is likely a common background contaminant from some phase of the sampling, extraction, or analytical procedure, and associated low-level sample concentrations are not considered to be site related. If the analyte concentration is above the PQL, then there is a potential contamination problem and sample results may be biased high or the data determined unusable. The analytes found in the method blanks and associated qualified results are presented in a table included in the DUSR (if applicable).

#### Review Results

All blank sample analyses were performed at the required frequency. For most of the organic sample analyses no compounds were detected in the blanks. When compounds were detected in the method blanks at a level significant to the samples within the analytical batch, the associated sample results were qualified "U" as non-detect at the reporting limit. The level of method blank contamination for these analyses has no impact on data usability.

Inorganic parameters were detected in several of the blank samples at levels that resulted in no qualification of sample results, qualification of detected sample results as estimated, or qualification of non-detects at the reporting limits. Sodium and potassium were frequently

detected in the blanks associated with several SDGs and various other metals were detected sporadically. For the TCLP metals analyses low levels of silver and lead in the blanks had no impact on the data; no qualifiers were added on this basis.

### 3.2.6 Surrogate Compounds, Internal Standards, and Interference Check Standards Recoveries

Laboratory performance for individual samples analyzed for organic compounds is established by the addition of known quantities of surrogate compounds prior to preparation and analysis. In addition to surrogates, gas chromatography/mass spectrometry (GC/MS) methods (i.e., PAHs) use internal standards for calibration. Surrogate and internal standard recovery criteria are compound-specific and method-specific for organic methods. Recoveries outside of criteria may indicate deficiencies in the analytical system or the existence of sample matrix effects that could indicate low or high sample results for target compounds. Matrix effects are typically confirmed by sample re-analysis. The surrogate and internal standard results that were outside QC limits are included in the DUSR (if applicable).

The inorganic analytical methods used for this work did not include the addition of surrogates or internal standards; however, interference check samples (ICS) are analyzed to verify background and inter-element correction factors. Samples results are sometimes qualified based on the ICS recoveries.

#### Review Results

For the PCB congeners analyses several of the samples required dilutions up to 50X. Because the surrogate compounds were diluted, several of the surrogate recoveries were outside of the QC limits specified in the SOW. Sample results are not qualified or qualified as estimated and are considered usable for the project.

For Aroclors analyses, many of the samples had surrogate recoveries (decachlorobiphenyl [DCB] and tetrachloro-m-xylene [TCX]) outside of QC limits due to matrix effects which were substantiated for most of the samples through re-extraction and/or re-analysis. Sample results are qualified as estimated and are considered usable for the project.

For most of the PAH analyses the recoveries for surrogates and internal standards were acceptable. For most of those that were outside criteria the associated results were either not qualified or qualified as estimated. For samples with internal standards that were outside criteria causing results to be qualified as rejected, results for dilutions that were performed with acceptable recoveries were flagged as reportable for the affected samples whenever possible. Most of the internal standard recoveries for the PAH analyses were acceptable, but a few of the PAH results were qualified as estimated based on internal standard recoveries. The samples were affected by matrix interferences that were confirmed with sample re-analysis, dilution, field duplicate results, or MS/MSD results. When reanalyzed, the best analytical results were reported. The process set forth in the CLP National Functional Guidelines was used to determine the best analytical result when multiple analyses were performed. The specific data used in the evaluation included magnitude and direction of internal standard area count shift, magnitude and direction of internal standard retention time shift, holding times, target compounds reported, and other quality control information (e.g., calibration, method blanks). Sample results are qualified as estimated and are considered usable for the project.

For most of the pesticides analyses the surrogate recoveries were acceptable, and for those that were outside criteria the associated results were either not qualified or qualified as estimated and are considered usable for the project.

For the 2009 inorganic analyses, 6 sample results for silver from two SDGs and one result for antimony were rejected due to negative results with absolute value greater than the quantitation limit. Several sample results for arsenic, beryllium, cadmium, sodium, and silver were qualified as estimated, as well as sporadic instances of other metals, due to ICS recoveries and are considered usable for the project.

### **3.2.7 Matrix Spike/Matrix Spike Duplicate and Laboratory Duplicate Analysis**

The MS/MSD analyses are intended to provide information about the effects that the sample matrix exerts on the digestion/extraction and measurement methodology. MS recovery values that do not meet laboratory QC criteria may indicate that sample analyte results are being attenuated in the analysis procedure. The potential sample bias may be estimated by noting the degree to which the MS concentration was elevated or lowered in the spike analysis. However, this bias should serve only as approximations; sample-specific problems may be the cause of the discrepancy, particularly in soil samples. Recoveries of a post-digestion spike or a laboratory control sample (LCS) are used to verify that the analytical methodology is acceptable and that MS recoveries are due to matrix effects. An MSD analysis is performed to evaluate the precision of the sample results. Precision is measured as the relative percent difference (RPD) between analytical results for duplicate samples. The laboratory's failure to produce similar results for MSD samples may indicate that the samples were non-homogeneous (particularly in soil samples), or that method defects may exist in the laboratory's techniques. The MS results outside QC limits are presented in a table included in the DUSR (if applicable).

#### **Review Results**

The MS/MSD sample analyses were performed at the required frequency except for Pesticides (due to limited sample quantities) as indicated on Table 3-2. There were no MS/MSD analyses for the TCLP Metals.

For the PCB congener analyses, the samples that were spiked contained high levels of analytes and matrix interferences, therefore the samples were diluted for analysis and the spike recoveries were outside of the QC limits specified in the SOW. Sample results are qualified as estimated or not qualified and are considered usable for the project.

For the Aroclors analyses most of the MS/MSD results were acceptable. For the PAH analyses several of the MS/MSD recoveries or RPDs were outside criteria due to high target compound concentrations in the samples or sample matrix effects. For the pesticides analyses most of the MS/MSD results were acceptable. For most of the MS/MSDs that were outside of QC acceptance criteria, detected compounds in the parent sample only were qualified as estimated and are considered usable for the project. For the 2009 samples, two sample results (pentachlorophenol in SDG E0066 and endrin in SDG E0089) were qualified as not detected and rejected (UR) due to MS/MSD recoveries below expanded criteria, and are not usable for the project.

For the inorganic analyses, most of the MS/MSD recoveries and precision were acceptable. For SDGs where spike recovery was outside the QC criteria, most associated sample results were qualified as estimated and are considered usable for the project. In general, the MS/MSD recoveries were greater than 30% and did not indicate a significant problem. For the 2009 samples, lead, manganese, and silver results were frequently qualified as estimated (as well as sporadic instances of other metals) due to MS/MSDs. For the 2010 vibracore samples, antimony results were frequently qualified as estimated and results for other metals were qualified as estimated sporadically for MS/MSD recoveries outside criteria. For the project overall, 64 sample results (antimony, selenium, silver, and thallium) in several SDGs were qualified as not

detected and rejected (UR) due to MS/MSD recoveries below expanded criteria, and are not usable for the project.

For most of the inorganic analyses, precision for the laboratory duplicate analyses was acceptable. Precision for a few laboratory duplicate analyses was outside acceptance criteria and the associated sample results were qualified as estimated and are considered usable for the project. Twenty sample results for zinc in SDG MB00M5 were rejected due to a high laboratory duplicate sample RPD, and are not usable for the project.

### 3.2.8 Laboratory Control Sample Analysis

The LCS is analyzed to monitor the efficiency of the digestion/extraction procedure and analytical instrument operation. The ability of the laboratory to successfully analyze an LCS demonstrates that there are no analytical problems related to the digestion/sample preparation procedures and/or instrument operations. The LCS results outside QC limits are presented in a table included in the DUSR (if applicable). Sporadic and marginal QC failures for multiple component methods do not indicate an analytical concern. If recoveries are high and the compounds are not detected in the samples, then no data qualification is required. All recoveries should be above 10 percent or the non-detect results flagged “UR” as rejected.

#### Review Results

All LCS analyses were performed at the required frequency and within control limits except for sporadic failures. The sample results associated with sporadic failures are flagged as estimated with appropriate bias and are considered usable for the project.

### 3.2.9 Field Duplicate Samples

Field duplicate analysis is performed to evaluate the overall precision of the sampling and analysis program. Precision is measured as the RPD between analytical results for field duplicate samples. The lack of similar results for field duplicate samples may indicate that the samples were non-homogeneous, sample collection procedures were not representative, or that method defects may exist in the laboratory's techniques. The field duplicate results for positive results are presented in Table 7 of the DUSR. Sample results with RPDs less than 70 percent for soil or sediment samples are flagged as “Good.” Sample results with RPDs higher than 70 percent are flagged as “Poor.” If sample results are below the reporting limit then the precision criteria are considered valid. In some cases, low results at or below the reporting limit may be present in one duplicate sample, but not the other sample. The precision cannot be evaluated, but if the result is low, the finding is acceptable.

#### Review Result

For field duplicate samples, required QC sample percentages were achieved except for PCB congeners and TCLP metals analyses that were impacted by limited sample volume. For the organic and inorganic analyses most of the field duplicate sample pairs showed acceptable precision, indicating the sampling and analysis techniques were reproducible. For those organic and inorganic field duplicate results with RPDs above criteria, the lack of precision is likely due primarily to matrix effects or sample non-homogeneity and not sampling or analytical variability. Sample results for the field duplicate sample pair are qualified as estimated and are considered usable for the project.

### 3.2.10 Dilutions

Dilutions may be performed as a normal requirement of the analytical method (e.g., serial dilutions for metals analysis) or because the concentration of the target analyte in the sample exceeds the calibrated range for the analysis and an accurate result cannot be obtained.

#### Review Results

For the PCB congener analyses, a few sample results were assigned laboratory qualifiers due to saturation and significant concentrations of matrix interferences in the samples, for which the laboratory was unable to perform further dilutions and reanalyses. Sample results are qualified as estimated and are considered usable for the project.

For the organic analyses numerous sample dilutions were performed because the concentration of one or more compounds exceeded the calibrated range. In many cases multiple dilutions of one sample were required in order to get all of the detected compounds into the calibrated range for both types of instrumental analyses, LS and SIM. Preliminary reportable results were chosen initially by flagging the SIM data as reportable and the LS data as not reportable. Any SIM results exceeding the calibration range were flagged not reportable, and results from an appropriate sample dilution were flagged reportable for those compounds. Potentially rejected results were evaluated individually. The process set forth in the CLP National Functional Guidelines was used to determine the best analytical result when multiple analyses were performed. The specific data used in the evaluation included dilution, holding times, laboratory qualifiers, and other quality control information (e.g., calibration, method blanks).

For PAH analyses, for samples B00B8 and B00H0 (SDG B00B8) and sample B00P8 (SDG B00L4) the only result reported by the laboratory for a few compounds exceeded the calibration range. The laboratory was unable to provide results that were within the calibration range for those samples and parameters therefore the results that were designated reportable and exceeded the calibration range were qualified with JY as estimated and are considered usable for the project.

For the inorganic analysis, several samples required dilution due to high concentrations of target parameters. These samples were analyzed and reported at an elevated detection limit. For samples where dilutions were performed, the hard copy data was checked and the sample concentration conversions were performed to check the accuracy of the reported results. For the metals analyses, several sample results for sodium were qualified as estimated, as well as sporadic instances of other metals, due to serial dilutions where %D were outside of acceptance limits. For SDG ME081 (2009 samples) most of the metals results were qualified as estimated due to high %D for serial dilutions. For the 2009 samples, 25 samples were re-digested, reanalyzed, and reported under a new SDG because of questions about the inductively coupled plasma (ICP) analyses.

## 3.3 Data Quality Evaluation

Overall, the data quality was acceptable and the laboratory analysis and reporting procedures representative of appropriate methodology for sediment and soil samples. The objectives for completeness were above 99% for all samples as summarized in Table 3-5.

The qualifiers were added to the data in both electronic database and the final report tables. The qualifiers are defined as follows:

- J – The J qualifier indicates an estimated value because the associated QC data indicated a potential laboratory or matrix problem or interference. In addition, J flags assigned by

the laboratory indicate the results are below the PQL, but above the instrument detection limit (IDL) or method detection limit (MDL).

- NJ – The NJ qualifier indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration. This qualifier was only applied Aroclors results.
- U – The result is considered non-detect at the reported value. The laboratory assigned this flag to analytes not present at detectable concentrations (above the IDL or MDL). The data validator assigned this flag when an analyte was considered non-detect due to blank contamination. If the result is above the PQL, the PQL is considered elevated.
- UJ – The reported value for the PQL is estimated.
- R – The result is rejected and not usable for environmental data assessment.
- UR – The result is considered non-detect, but the reported value is rejected and not usable for environmental data assessment.

Additional qualifiers were applied to PCB congeners results. The qualifiers are defined as follows:

- C – The congener co-eluted with another congener.
- CU – The congener co-eluted with another congener and was not detected.
- HM – The sample contained high moisture, >70%.
- UH – The sample contained high moisture, >70%, and the congener was not detected.

### **Data Usability Concerns**

Three significant concerns were noted with the laboratory data that impacted data usability.

1. For the project overall, 64 sample results (antimony, selenium, silver, and thallium) in several SDGs were qualified as not detected and rejected (UR) due to MS/MSD recoveries below expanded criteria, and are not usable for the project.
2. For the 2010 vibracore samples, 20 sample results for zinc in SDG MB00M5 were rejected due to a high laboratory duplicate sample RPD, and are not usable for the project.
3. For the 2009 samples, two sample results (pentachlorophenol in SDG E0066 and endrin in SDG E0089) were qualified as not detected and rejected (UR) due to MS/MSD recoveries below expanded criteria, and are not usable for the project.

Results of the particle size samples collected during sediment sampling will be discussed with the geotechnical analysis in Section 3.6.

## **3.4 Geotechnical Analysis**

There were 464 samples taken for TOC and 461 for grain size analysis for the three sampling efforts. All geotechnical data reports are presented in Appendix G.

Samples were submitted to Region 5 Central CRL for analysis of TOC and grain size for the 2009 sampling campaign and to TestAmerica Burlington for the 2010 sampling campaigns. Sample results were reviewed and reported as described in the QAPP (CH2M HILL and EEEPC 2009a). EEEPC performed a completeness check to verify that all samples were received and analyzed by the laboratory as planned. Standard analytical protocols were followed in the

analysis of these samples and for the majority of analyses no problems were encountered or anomalies observed.

Laboratory quality control samples were within established control limits with the following exceptions pertaining to the TOC analyses.

- The continuing calibration verification (CCV) for SDG 911007 (2009 samples) marginally exceeded control criteria. Associated sample results are considered usable for the project.
- The TOC concentration in a continuing calibration blank (CCB) in SDG 138007 (2010 hand-core samples) exceeded the method reporting limit. The associated samples were reanalyzed one day outside the analytical holding time, and the CCB met method acceptance criteria. The reanalysis results were reported and the original results were provided in the data package as supportive documentation. Associated sample results are considered usable for the project.
- The MS/MSD percent recoveries and RPD in SDG 138006 (2010 hand-core samples) and SDG 137391 (2010 vibracore samples) exceeded the established control criteria due to the sample matrix. Associated sample results are considered usable for the project.
- The TOC analysis Lloyd Kahn Method requires that each sample is analyzed in duplicate and the RPD for the duplicate analyses must be less than 40 percent. Several samples from several SDGs yielded a relative percent difference greater than 40 percent between the two determined TOC values. In these instances, the laboratory performed at least two additional TOC analyses then applied the “Dixon” statistical outlier test to the total population of determinations for each sample and, if necessary, removed any outliers or performed another pair of analyses until the results for that sample passed the Dixon test. The results of that assessment are provided in the laboratory submittals. The laboratory reported the average of the two original results, not the average of the results that passed the Dixon test. Associated sample results are considered usable for the project.

# Analytical Results

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This report does not include the evaluation and/or interpretation of the analytical results. As such, only a brief review of the sampling results is provided in this document. All chemical data are contained in the project analytical database provided in Appendix F.

Analytical data of sediment samples collected from sediment cores and from surface soil samples that were submitted for chemical and particle size analyses are reported by river reach. Tables 4-1 through 4-7 list the analytical data by Reach and matrix. PCB totals were determined by summing positive results for any PCB Aroclor detected. For PCB Aroclors that were not detected in the samples, a value of 0 was used. For a percentage of the samples, PCB congener analysis was performed (see Table 4-8a). The comparison of the congener data versus the Aroclor analysis data is presented in Table 4-8b. PAH analysis consisted of analyzing samples for 16 individual PAHs not including 2-methyl naphthalene. Total PAH concentrations were calculated by summing up the concentrations for 16 of the individual PAHs in each sample. If an individual PAH compound was not detected in the sample, then a value of 0 was used in the sum. Additionally, an extended list of PAHs was analyzed for a percentage of the samples (see Table 4-9). The AVS/SEM results are presented on Table 4-10. TCLP metals analysis results are presented on Table 4-11, and particle size analysis data are presented in Tables 4-12a and 4-12b (two separate tables were necessary due to differences in the reporting of the data from the laboratories- the 2009 samples were analyzed by Region 5 CRL and the 2010 samples were analyzed by TA Burlington).

These results are summarized in the sections below by reach.

## 4.1 Reach 2

### 4.1.1 PCB Analysis

One hundred twenty sediment samples (including duplicate samples) were collected from various depths throughout the reach and submitted for PCB analysis with PCBs detected in 104 samples. Thirteen samples did not contain any PCB in either the original or duplicate sample. The only Aroclors detected in the sediment samples from Reach 2 were Aroclor 1248 and Aroclor 1260. Although Aroclor 1260 was detected in all but one (R2-009-V) of the cored locations, it was only found in 47 of the 120 samples. Both Aroclors were detected in 33 samples and in 31 of these samples Aroclor 1248 was found at a higher (often an order or two of magnitude) concentration than the Aroclor 1260. Also, in several locations, Aroclor 1260 was the only Aroclor found in the deeper sample. Aroclor 1260 was absent from all surface samples except at three locations (samples: R2-003-V-Z1P, R2-010-V-Z1b, and R2-013-V-Z1b), and at two of these locations (R2-003-V and R2-013-V) it was detected in almost every depth interval. Total PCB concentrations in this reach ranged between 0 and 23,000 µg/kg (23 parts per million [ppm]). The highest concentrations of PCBs in Reach 2 (1 to 23 ppm) were detected in between 2 and 4 feet below the top of the sediment (-Z3 and -Z4 samples).

### 4.1.2 PCB Congener Analysis

Twenty-three sediment samples were collected from throughout the reach and submitted for PCB congener analysis including one surface sample from each location as well as every depth



sampled from one location (R2-011-V). PCB congeners were found in every sample at concentrations ranging 0.11 and 24 ppm (R2-011-V-Z5). Total PCB congener concentrations were at least an order of magnitude higher than the total PCB concentrations in the associated sample.

#### **4.1.3 SVOC Analysis**

One hundred twenty sediment samples collected from various depths throughout the reach were submitted for PAH analysis including 32 samples submitted for the extended list of PAHs. PAHs were detected in all but four samples (R2-003-V-Z6, R2-007-V-Z5B, R2-010-V-Z7B, and R2-015-V-Z7B). Total PAH concentrations ranged between 0.048 (R2-001-V-Z6) and 65 ppm (R2-009-V-Z5) with most of the samples in the 1 to 10 ppm range. For the most part the additional 18 PAHs were found at concentrations similar to the standard list PAHs. Exceptions include C3-naphthalenes in the R2-011-V and R2-014-V samples found at concentrations similar to the total PAH (list of 16) concentration.

#### **4.1.4 Metals Analysis**

One hundred twenty sediment samples collected from various depths throughout the reach were submitted for metals and mercury analysis. Lead was detected in every sample. As in the case of PCBs in Reach 2, the highest lead concentrations (exceeding 1,000 ppm) were found in the subsurface sediment. All the surface samples had lead concentrations less than 500 ppm. In all but three locations (R2-005-V, R2-09-V, and R2-013-V), the bottom sample had lead at a concentration below 350 ppm and a lot of them were below 100 ppm. The bottom sample at R2-009-V (-Z5: 698 ppm) and R2-013-V (-Z8: 723 ppm) was a sediment sample and not a sample of the native. At R2-005-V, the bottom sample (-Z6: 548 ppm) was collected from what was suspected to be native material underlying the layer with the highest lead concentration in Reach 2 (6760 ppm at R2-005-V and R2-002-V). The Ponar surface samples contained lead at similar, but always slightly lower, concentrations when compared to the associated core samples (where available).

Six samples (R2-002-V-Z4, R2-005-V-Z3, R2-005-V-Z4, R2-008-V-Z3, R2-014-V-Z4, and R2-014-V-Z6) were submitted for TCLP metals analysis based on the levels of lead found in them during metals analysis. Barium was found in all of them and lead was found in three samples, all at concentrations below the hazardous waste level as defined by the Environmental Conservation, Division of Solid and Hazardous Materials, Identification and Listing of Hazardous Wastes (6 NYCRR 371).

#### **4.1.5 AVS/SEM Analysis**

Two surface sediment samples (R2-002-V-Z1P and R2-005-V-Z1P) were collected from various depths throughout the reach and submitted for AVS/SEM analysis. AVS/SEM ratio was 14.56 in R2-002-V-Z1P and 1.87 in R2-005-V-Z1P. These samples were similar in nature and had similar concentrations of metals.

#### **4.1.6 TOC Analysis**

One hundred twelve sediment samples were collected from various depths throughout the reach and submitted for TOC analysis. TOC in the reach ranged from 2,470 to 150,000 mg/kg with an average of 67,500 mg/kg.

### 4.1.7 Particle-size Analysis

One hundred twelve sediment samples were collected from various depths and submitted for particle size analysis. Consistent with the field classifications, these analyses showed that most of the samples (79 percent) were comprised by 90 percent of fines (silt and/or clay).

Approximately 20 percent of the samples were sandy mixes of silt and/or clay. One sample (R2-007-V-Z5A) contained approximately 10 percent gravel as well.

## 4.2 Reach 3

### 4.2.1 PCB and Pesticide Analysis

Seventy four sediment samples (including duplicates) were collected from various depths throughout the reach and submitted for PCB analysis, with PCBs detected in 57 samples. PCBs were detected in all but two (R3-021-V and R3-023-V) of the Reach 3 vibracoring locations. Both locations that PCBs were not found were locations that refusal was encountered at 3 feet or less and no sediment was found. The samples at these locations were collected from what appeared to be native clay material. The only Aroclors detected in the sediment samples from Reach 3 were Aroclor 1248 and Aroclor 1260. Aroclor 1260 was detected in 33 of the 57 samples where PCBs were found. Thirty samples contained both Aroclors, and in every case Aroclor 1248 was found at a higher concentration (often at least double) than the Aroclor 1260 concentration. Aroclor 1260 was absent from all surface samples except at five locations, and at four of these locations it was detected in almost every depth interval. Total PCB concentrations in this reach ranged between 0 and 11 ppm. The highest concentration of PCBs in Reach 3 (11 ppm) was detected in sample R3-017-V-Z4 collected from the 3-to 4-foot depth interval from a dark silt with clay and fine sand layer (88.7 percent fines) that exhibited a fuel-like odor. Near surface sample R3-016-Z1b (0-to 0.5-foot interval) contained the second highest concentration of PCBs (10 ppm) in the Reach 3 sediments. With the exception of locations R3-016-V and R3-020-V, the subsurface sediments from the 2-to 4-foot interval (-Z3 and -Z4 samples) exhibited the highest concentration (above 1ppm) at each location.

Four soil samples were also collected from wetlands within the Reach 3 area for PCB analysis. All of these samples contained Aroclor 1254 at concentrations ranging between 0.2 to 0.53 ppm. There were no other Aroclors detected in the wetland samples.

One of these samples was also analyzed for pesticides and three pesticides were found in the sample (dieldrin, delta BHC, and gamma chlordane).

### 4.2.2 PCB Congener Analysis

Nineteen sediment samples were collected from throughout the reach and submitted for PCB congener analysis including one surface sample from each vibracoring location as well as every depth sampled from location R3-020-V and the bottom sample at R3-026-V (-Z4). Surface soil sample R3-107-W was also submitted for PCB congener analysis. PCB congeners were found in every sample at concentrations ranging between less than 1 ppb and above 35 ppm (R3-020-V-Z2 and R3-020-V-Z3 at 35.9 and 35.2 ppm, respectively). With some exceptions, total PCB congener concentrations were at least an order of magnitude higher than the total PCB concentrations measured as Aroclor in the associated sample.

### 4.2.3 SVOC Analysis

Seventy four sediment samples collected from various depths throughout the reach were submitted for PAH analysis including 16 samples analyzed for the extended list of PAHs.

PAHs were detected in all locations; and in all but three samples (R3-021-V-Z1B, R3-021-V-Z2, and R3-021-V-Z3). At location R3-021-V, PAHs were only present in the top sample (R3-021-V-Z1A) at a very low concentration. Total PAH concentrations ranged between 0.0041 (R3-021-V-Z1A) and 20 ppm (R3-016-V-Z5) with most of the samples in the 0.1 to 10 ppm range. The locations with lowest concentrations coincide with the locations where PCBs were not found (native clay material present throughout the core). In general, individual concentrations of the additional 18 PAHs were similar to individual concentrations of the 16 standard list PAHs. Exceptions include C4-and C3-napthalenes in the R3-020-V samples found at concentrations similar to the total PAH (list of 16) concentration.

One soil sample from wetland location R3-107-W was also analyzed for SVOCs. All 16 standard list PAHs were found in the sample, with a total PAH concentration of 2.1 ppm.

#### **4.2.4 Metals Analysis**

Seventy four sediment samples collected from various depths throughout the reach were submitted for metals and mercury analysis. Lead was detected in every sample. Similar to the PCBs and PAHs, the samples from the two locations where native material was present throughout the core, presented the lowest concentrations of lead and other metals. With one exception (location R3-016-V), lead concentrations exceeding 1,000 ppm were found below at least 1 foot of sediment. Similarly, the bottom sediments did not contain lead at concentrations above 1,000 ppm with two exceptions (R3-026 and R3-027). At R3-026-V native material was not present in the bottom sample.

Four soil samples were also collected from wetlands within the Reach 3 area for metals analysis. Lead was found in all of them at concentrations ranging between 310 to 533 ppm.

Three samples (R3-017-V-Z4, R3-017-V-Z6, and R3-026-V-Z3) were analyzed for TCLP metals based on the levels of lead found during metals analysis. Barium and lead were found in all three samples, at concentrations below the characteristic hazardous waste level (6 NYCRR 371). However, lead in sample R3-017-V-Z6 was found at a concentration of 4.61 milligrams per liter (mg/L) that is close to the characteristic hazardous waste level of 5 mg/L.

#### **4.2.5 AVS/SEM Analysis**

Four surface sediment samples (R2-002-V-Z1P and R2-005-V-Z1P) were collected from various depths throughout the reach and submitted for AVS/SEM analysis. AVS/SEM ratio ranged between 1.78 in R3-018-V-Z1 and 12.02 in R3-027-V-Z1.

#### **4.2.6 TOC Analysis**

Sixty two sediment samples were collected from various depths throughout the reach and submitted for TOC analysis. TOC in the reach ranged from 1,240 to 141,000 mg/kg with an average of 71,300 mg/kg.

The average TOC for the four wetland soil samples was 66,000 mg/kg.

#### **4.2.7 Particle-size Analysis**

Sixty one sediment samples were collected from various depths and submitted for particle size analysis. These analyses showed that over half of the samples were silt or clay sediments (more than 90 percent fines present in the sample). Approximately 20 percent of the samples were sandy mixes of silt and/or clay. Four samples contained significant (15 percent or more) amounts of gravel as well. The four wetland soil samples also contained at least 50 percent clay/silt-size material. The results of these analyses are consistent with the field classifications.

## 4.3 Reach 4

### 4.3.1 PCB and Pesticide Analysis

Twenty-four sediment samples (including duplicate samples and a tributary sample) were collected from various depths (most of sediment retrieved was less than 1 foot thick) throughout the reach and submitted for PCB analysis with PCBs detected in 20 samples. The only locations without any PCBs were location R4-142-C (2.5 inches of sand and gravel on top of bedrock) and the tributary location (R4-119-T). Aroclors 1248 (six samples), 1254 (15 samples), and 1260 (three samples) were detected in the sediment samples from Reach 4. Total PCB concentrations detected in this reach ranged between 0.067 and 27 ppm. The highest concentrations of PCBs in Reach 4 were found at location R4-135-C (27 ppm in the composite sample and 5.3 ppm in the Z1a sample). Other samples with PCB concentrations above 1ppm include Z1a samples at locations R4-136-C, R4-139-C, and R4-143-C.

Three soil samples were also collected from wetlands within the Reach 4 area for PCB analysis. Only R4-112-W and R4-126-H contained PCBs (Aroclor 1254) at concentrations less than 1ppm.

Six of these samples (including the tributary and one wetland soil sample) were also analyzed for pesticides. Eleven pesticides were found in the samples at low levels.

### 4.3.2 PCB Congener Analysis

Three sediment samples were submitted for PCB congener analysis. PCB congeners were found in every sample at concentrations ranging between 0.29 ppb and 2.8 ppm.

### 4.3.3 SVOC Analysis

Seventeen sediment samples (16 main channel and one tributary) were collected from various depths throughout the reach and submitted for SVOC analysis including samples submitted for the extended list of PAHs. PAHs were found in all samples. Total PAH concentrations in the main channel ranged between 0.86 (R4-142-C-Z1A) and 250 ppm (R4-138-C-Comp) with an average concentration of 26 ppm. Sample R4-138-C-Comp collected at the downstream end of the multi-use industrial facility (Forrest Creek Business Park and Storage Center) located south of Ide Road contained not only the highest concentration in this reach, but the second highest in the entire study area. Sample R4-030-C collected during the 2009 effort from a nearby location with deeper sediment contained 40 ppm of total PAHs. There was another sample collected behind this facility (R4-139-C-Z1a) between two outfalls in the area that contained total PAHs at a concentration of 20 ppm closer to the average for the reach. Total PAH concentration in the samples collected downstream of R4-138-C-Comp drops to 40 and 26 ppm (R4-030-C and R4-137-C-Comp, respectively). In general, individual concentrations of the additional 18 PAHs were similar to individual concentrations of the 16 standard list PAHs. Exceptions include samples R4-135-C-Z1a and R4-138-C-Comp where several of the additional PAHs exhibited concentrations much higher than the standard list PAHs.

Total PAH concentration in the tributary sediment and the wetland soil sample was 0.4 and 2 ppm, respectively.

### 4.3.4 Metals Analysis

One tributary and 23 main creek sediment samples were collected from various depths throughout the reach and submitted for metals and mercury analysis. Metals concentrations are lower than in the upstream creek sediments and close to background levels for most of the metals. Sample R4-136-C-Z1A collected immediately downstream of Ide Road contained the

highest concentration of lead and most of the other metals. Elevated concentrations of most metals are also detected in the samples collected near the outfall in the upstream end of the industrial park. These concentrations decrease (often by an order of magnitude) in the samples collected in the downstream end of the park.

The three surface soil samples submitted for metals analysis contained most metals at concentrations lower than the average concentration in the creek samples. Metals concentrations in the tributary sample were lower than those in the historical channel and wetland samples.

Sample R4-031-C was submitted for TCLP metals analysis based on the levels of lead found during metals analysis. Barium and lead were found in the sample at concentrations below the characteristic hazardous waste level (6 NYCRR 371).

#### **4.3.5 AVS/SEM Analysis**

Five sediment samples were submitted for AVS/SEM analysis. Similar to the total metals results, concentrations in the tributary sample were lower than those in the creek samples. Concentrations of most AVS/SEM analytes were higher in the R4-031-C sample collected near the outfall behind the industrial park.

#### **4.3.6 TOC Analysis**

Twenty four sediment samples were submitted for TOC analysis. TOC in the reach ranged from 16,000 to 147,000 mg/kg with an average of 57,000 mg/kg. The average TOC for the three soil samples was 56,000 mg/kg.

#### **4.3.7 Particle-size Analysis**

Twenty four sediment samples were collected from various depths and submitted for particle size analysis. These analyses showed that over half of the samples were predominantly silt or clay sediments (more than 90 percent fines present in the sample). Eight consisted of sandy sediments mixed with varying amounts of gravel and silt-size material, four consisted of mixtures of approximately equal amounts of silt-size and sand material with some gravel, 12 were predominantly (more than 50 percent silt-size sediments mixed with sand and very little gravel, and one gravelly, silty sand sample. The surface soil samples were also silty sands. The results of these analyses are consistent with the field classifications.

### **4.4 Reach 5**

#### **4.4.1 PCB and Pesticide Analysis**

Seventy one sediment samples (including duplicates) were collected from various depths throughout the reach and submitted for PCB analysis, with PCBs detected in 28 samples. With the exception of location R5-040-V, PCBs were detected in at least one sample at each location. R5-040-V is one of the three sampling locations (the other two are R5-039-V and R5-041-V) along a transect established directly upstream of Newfane Dam. PCBs were detected in the bottom sample (Z2) of R5-039-V and the top sample (Z1A) of R5-041-V. The only Aroclors detected in the sediment samples from Reach 5 were Aroclors 1248 and 1260. Aroclor 1248 was detected in 20 of the 28 samples where PCBs were found and Aroclor 1260 was detected in 14 samples. Total PCB concentrations in this reach ranged between 0 and 1.2 ppm (R5-044-V-Z1B). Total PCB concentrations at or above 1 ppm were only found in four samples (R5-044-V-Z1b, R5-050-V-Z2, R5-049-V-Z3, R5-045-V-Z1). There were no total PCB concentrations above 1 ppm found

at depths below 3 feet. In five of the 12 locations the bottom sample (three collected from what appeared to be native material and two where no native was observed) contained PCBs and in three of these samples sample (R5-039-V-Z2, R5-042-V-Z5A, and R5-048-V-Z3) these were the only PCB found at the location. Only two locations had PCBs above 0.1 ppm in the bottom sample (R5-039-V-Z2 and R5-050-V-Z5A), both locations where native material was not encountered.

Five soil samples were also collected from the wetlands and a historical channel within the Reach 5 area for PCB analysis. The four wetland samples contained Aroclor 1254 at concentrations ranging between 0.13 to 1.2 ppm. The historical channel sample did not contain any PCBs.

Two of these samples were also submitted for pesticides and six pesticides were found.

#### 4.4.2 PCB Congener Analysis

Four sediment samples were collected from various depths at sample location R5-049-V and were submitted for PCB congener analysis. In every case the PCB congener analysis yielded PCB concentrations at least one order of magnitude higher than the standard Aroclor analysis in for the same sample or for the same depth interval. PCB congeners were found in every sample at concentrations ranging between 0.2 (-Z4) ppm and 29.1 (-Z3) ppm.

One surface soil sample was also submitted for PCB congener analysis. In this case, the standard Aroclor analysis detected higher concentrations of total PCBs than the congener analysis.

#### 4.4.3 SVOC Analysis

Seventy one sediment samples collected from various depths throughout the reach were submitted for PAH analysis including 24 samples analyzed for the extended list of PAHs. PAHs were detected in all samples. Total PAH concentrations in the surface sediments ranged between 0.21 and 17 ppm (R5-039-V-Z1) with an average of 3.6 ppm. Total PAH concentrations in the subsurface sediments ranged between 0.0039 (R3-021-V-Z1A) and 12 ppm (R5-041-V-Z2) with an average of 1.9 ppm. With the exception of location R5-041-V, the highest concentrations (above 10 ppm) of total PAHs were found at location R5-041-V between 0 and 2 feet below the top of the sediment. Total PAH concentrations remained above 1ppm in the bottom sample (R5-047-V-Z4, R5-049-V-Z5A, and R5-050-V-Z5A) at three locations. In general, individual concentrations of the additional 18 PAHs were similar to individual concentrations of the 16 standard list PAHs. Exceptions include several samples at location R5-050-V-Z2 where the additional PAHs exhibited higher concentrations than those in the standard 16 list.

Two soil samples from were also analyzed for SVOCs. All 16 standard list PAHs were found in the samples. Total PAH concentration was 5.3 ppm in sample R5-116-W and 49 ppm in sample R5-127-H.

#### 4.4.4 Metals Analysis

Seventy one sediment samples collected from various depths throughout the reach were submitted for metals and mercury analysis. Lead was detected in every sample. Lead concentrations exceeding 1,000 ppm were found in nine samples and mostly in the 1-to-2-foot interval (sample Z2). Exceptions included samples: R5-044-V-Z1b (0.5-to-1-foot interval), R5-049-V-Z3 (2-to-3-foot interval), R5-050-V-Z3 (2-to-3-foot interval), and R5-050-V-Z4 (3-to-4-foot interval). Location R5-050-V contained the highest concentrations of lead and several metals.

R5-050-V-Z3 exhibited the third highest lead concentration in the study area. Bottom sediments did not contain lead at concentrations above 1,000 ppm.

Five soil samples were also collected from the wetlands and a historical channel within the Reach 5 area for and were submitted for metals analysis. Lead concentrations in the wetland samples ranged between 265 and 47 ppm. Lead concentration in the historical channel sample was much lower at 30.9 ppm.

Ten samples were submitted for TCLP metals analysis based on the levels of lead found during metals analysis. Barium was found in all the samples and lead was found in eight samples. Barium and lead concentrations were below the characteristic hazardous waste level (6 NYCRR 371) in all the samples.

#### **4.4.5 AVS/SEM Analysis**

One surface soil and two sediment samples were submitted for AVS/SEM analysis. Similar to the total metals results, concentrations in the wetland soil sample were lower than those in the creek samples. AVS/SEM ratio in the two creek samples was 5.13 in R5-044-V-Z1 and 0.91 in R5-050-V-Z1.

#### **4.4.6 TOC Analysis**

Sixty sediment samples were collected from various depths throughout the reach and submitted for TOC analysis. TOC in the reach ranged from 1,170 to 130,000 mg/kg with an average of 57,000 mg/kg.

The average TOC for the soil samples was 86,000 mg/kg. The sample from wetland location R5-115-W had a TOC concentration of 175,000 mg/kg, greater than any TOC concentration found in the creek.

#### **4.4.7 Particle-size Analysis**

Fifty eight sediment samples were collected from various depths and submitted for particle size analysis. These analyses showed that the majority of the samples were predominantly silt or clay-size sediment mixed with sand. The rest of the samples are sandy mixes with some fines. Nine samples also contained significant amounts of gravel (10 percent or more) and one sample R5-050-V-Z5 is characterized by equal amounts of silt-sized material and gravel mixed with some sand. The surface soil samples were also silt/clay sand mixes. The results of these analyses are consistent with the field classifications.

### **4.5 Reach 6**

#### **4.5.1 PCB and Pesticide Analysis**

Sixty-nine sediment samples (including duplicate samples) were collected from various depths (most of sediment retrieved was less than 2 feet thick with a maximum thickness of 4 feet) throughout the reach and submitted for PCB analysis with PCBs detected in 53 samples. The only locations without any PCB were location R4-142-C (2.5 inches of sand and gravel on top of bedrock) and the tributary location (R4-119-T). Aroclors 1248 (23 samples-all from 2010), 1254 (47 samples), and 1260 (26 samples-all from 2010) were detected in the sediment samples from Reach 6. Also Aroclor 1016 was detected in one sample (R6-056-CR-duplicate of sample R6-056-CR) at a concentration of 2.3 ppm. This is the only sample of this investigation that contained Aroclor 1016. Total PCB concentrations detected in this reach ranged between 0.018 and 16ppm. Ten samples contained total PCB concentrations at or above 1 ppm.

Three soil samples were also collected from a wetland and historical channel within the Reach 4 area for PCB analysis. Aroclor 1254 concentrations (the only PCB found) were 0.072 ppm in the wetland sample R6-117-W and 0.48 in the historical channel sample (R6-128-H).

Eight of these samples (including one historical channel soil sample) were also analyzed for pesticides. Fourteen pesticides were found in the samples at low levels.

#### 4.5.2 PCB Congener Analysis

Seven sediment samples were collected from various depths throughout the reach and submitted for PCB congener analysis. Total PCBs concentrations as identified by congener analysis were higher (often at least an order of magnitude) than the total PCBs as identified by Aroclor analysis.

#### 4.5.3 SVOC Analysis

Fifty seven sediment samples were collected from various depths throughout the reach and submitted for SVOC analysis including 14 samples submitted for the extended list of PAHs. PAHs were found in all the samples, with total PAH concentrations ranging between 0.49 and 13 ppm with an average concentration of 5.9 ppm. The highest PAH concentration of 130 ppm was found in sample R6-055-C. Total PAHs in the samples immediately upstream and downstream from this sample are two orders of magnitude lower. In general, individual concentrations of the additional 18 PAHs were similar to individual concentrations of the 16 standard list PAHs. Exceptions include sample R6-146-C-Z1a where several of the additional PAHs exhibited concentrations much higher than the standard list PAHs.

Total PAH concentration in the historical channel sample soil sample (R6-128-H) was 4 ppm.

#### 4.5.4 Metals Analysis

Sixty nine sediment samples were collected from various depths throughout the reach and analyzed for metals and mercury. Location R6-160-C- exhibited the highest and/or the second highest concentration of several metals in the reach including lead, chromium, copper, cadmium, nickel, zinc, and arsenic. Locations R6-146-C- and R6-052-C also contained elevated levels of several metals. These samples are in areas that could be impacted by “urbanized runoff” from the Town of Newfane.

The three surface soil samples submitted for metals analysis contained most metals at concentrations lower than the average concentration in the creek samples.

Sample R6-052-C was also analyzed submitted for TCLP metals based on the levels of lead found during metals analysis. This was the only sample that contained lead at a concentration above the characteristic hazardous waste level (6 NYCRR 371). Barium was also present in the sample, but at a concentration below the characteristic hazardous waste level.

#### 4.5.5 AVS/SEM Analysis

Four sediment samples were submitted for AVS/SEM analysis. Similar to the total metals results, most metals concentrations in the R6-052-C sample were higher than those in the rest of the samples.

#### 4.5.6 TOC Analysis

Seventy two sediment samples were submitted for TOC analysis. TOC in the reach ranged from 12,000 to 116,000 mg/kg with an average of 52,000 mg/kg. The average TOC for the three soil samples was 27,000 mg/kg.



### 4.5.7 Particle-size Analysis

Seventy two sediment samples were submitted for particle size analysis. Similar to the other reaches these analyses showed that the majority of the samples were predominantly silt or clay-size sediment mixed with sand. The rest of the samples are sandy mixes with some fines. A couple samples contained gravel above 10 percent. The results of these analyses are consistent with the field classifications.

## 4.6 Reach 7

### 4.6.1 PCB and Pesticide Analysis

Ninety seven sediment samples were collected from various depths throughout the reach and submitted for PCB analysis. Eighty six samples contained PCBs. Similar to the other reaches Aroclors 1248 (all 42 2010 samples-no 2009 samples), 1254 (all samples), and 1260 (32 samples - all from 2010), were the only Aroclors detected. Reach 7 had the highest concentrations of PCBs in the study area. Maximum total PCB concentrations (exceeding 50 ppm the Toxic Substance Control Act [TSCA] criteria) were found in samples R7-089-C, R7-178-C-Z1, R7-187-C-COMP, and R7-088-C. Sample R7-187-C-COMP was collected near but upstream of R7-089-C and R7-088-C; sample R7-178-C-Z1 was collected from a totally different section of the reach further downstream of these samples. Core sample, R7-088-C, was almost black in color and exhibited a strong fuel odor and a sheen appeared on the water surface and an oily substance remained on surface of the sleeve as the sleeve was retrieved. Core sample, R7-089-C, appeared to have metal filings or a similar material in the collected sample and a sheen appeared on the sample. Sample R7-186-C that was collected in 2010 in the same location as R7-089-C did not confirm the elevated PCB concentrations (total PCBs at this location were below 1 ppm). Similarly, R7-184-C that was collected in 2010 in the same location as R7-088-C contained total PCBs at a concentration of 6.9 ppm, which well below the concentrations detected in 2009. The odor and the staining were observed in both sample pairs during both sampling events and sample descriptions and particle size distributions are similar.

Ten tributary locations were sampled for PCBs (19 samples), including three from the East Branch and four from Gulf Creek, and three from smaller tributaries. PCBs were only detected in R7-121-T (0.39 ppm) and R7-205-T (0.11 ppm) collected from a smaller tributary directly upstream of sample R7-178-C-Z1 and from the upstream portion of Gulf Creek, respectively.

Six surface soil samples were collected for PCB from five historical channel locations and one wetland. All but one of these samples (R7-130-H) contained PCBs. Samples R7-134-H and R7-131-H contained total PCBs in excess of 1 ppm.

Twenty of these samples (including three tributary sediment samples and one wetland soil sample) were also analyzed for pesticides. Seventeen pesticides were found in the samples.

### 4.6.2 PCB Congener Analysis

22 samples were submitted for PCB congener analysis. High concentrations of PCB congeners were found at locations R7-089-C and R7-068-C.

### 4.6.3 SVOC Analysis

72 sediment samples were collected from various depths throughout the reach and submitted for SVOC analysis including 13 samples submitted for the extended list of PAHs. PAHs were found in all the samples, with total PAH concentrations ranging between 0.037 and 380 ppm with an average concentration of 30 ppm. The highest PAH concentration of 380 ppm was found in sample R7-073-C collected just downstream of East Branch of the creek and it was the highest total PAH concentrations found in the study area. Confirmatory sample R7-174-C-COMP contained a much lower concentration of 13 ppm and extent samples collected nearby R7-173-C and R7-175-C contained PAHs at a total concentration of less than 10 ppm.

Elevated PAHs (total PAH concentrations at or exceeding 10 ppm) were found in tributary samples R7-203-T (97 ppm) and R7-125-T (10 ppm) both collected in Gulf Creek near the Waste Water Treatment Plant. Historical channel surface soil sample R7-133-H and wetland sample R7-118-W contained total PAHs at concentrations of 29 and 25 ppm, respectively.

In general, individual concentrations of the additional 18 PAHs were similar to individual concentrations of the 16 standard list PAHs.

### 4.6.4 Metals Analysis

97 sediment samples were collected from various depths throughout the reach and submitted for metals and mercury analysis. Highest lead concentrations (exceeding 2,000ppm) are at R7-103-C and R7-101-C. Samples R7-068-C and R7-178-C contained the highest concentrations of several metals. Samples R7-203-T and R7-125-T collected in Gulf Creek near the Waste Water Treatment Plant contained the highest levels of most metals in tributary samples but similar to the average of the creek sample concentrations. Surface soil samples R7-134-H and R7-118-H contained the highest concentrations of most metals in the Reach 7 surface soil.

Similar to what was observed in the other reaches, TCLP metals analysis showed the presence of barium and lead in the samples at concentrations below the characteristic hazardous waste level.

### 4.6.5 AVS/SEM Analysis

Eighteen sediment samples were submitted for AVS/SEM analysis. Similar to the total metals results, most metals concentrations from location R7-068-C were higher than those in the rest of the samples.

### 4.6.6 TOC Analysis

71 sediment samples were submitted for TOC analysis. TOC in the reach ranged from 16,000 to 159,000 mg/kg with an average of 97,000 mg/kg. The average TOC for the tributary samples was 42,000 mg/kg and for the soil samples was 62,000 mg/kg.

### 4.6.7 Particle-size Analysis

122 samples were collected submitted for particle size analysis. Consistent with the field classifications, these analyses showed most matrices were classified as either silt or clay-sized material mixed with sand. Six samples (including some two tributary samples) also contained more than 10 percent gravel.

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## Tables

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Table 2-1a

Summary of Samples Collected During the 2009 Sediment Hand-coring and Surface Soil Sampling Effort

| Location                     | Sample ID | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors  | SVOC      | TOC      | Grain Size | Pesticides | AVS/ SEM | TCLP Metals | PCB Congeners | % Moisture |
|------------------------------|-----------|-------------|---------------------|--------------------|-----------------|-----------|-----------|----------|------------|------------|----------|-------------|---------------|------------|
| <b>Reach 3 Locations: 4</b>  |           |             |                     |                    |                 |           |           |          |            |            |          |             |               |            |
| R3-107-W                     | R3-107-W  | 11/16/09    | 0 - 0.5             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R3-108-W                     | R3-108-W  | 11/16/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R3-109-W                     | R3-109-W  | 11/16/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R3-110-W                     | R3-110-W  | 11/16/09    | 0 - 0.5             | 6                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| <b>Totals</b>                | <b>4</b>  | <b>-</b>    | <b>-</b>            | <b>-</b>           | <b>4</b>        | <b>4</b>  | <b>4</b>  | <b>1</b> | <b>4</b>   | <b>1</b>   | <b>0</b> | <b>0</b>    | <b>1</b>      | <b>0</b>   |
| <b>Reach 4 Locations: 15</b> |           |             |                     |                    |                 |           |           |          |            |            |          |             |               |            |
| R4-028-C                     | R4-028-C  | 11/17/09    | 0 - 1.55            | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-029-C                     | R4-029-C  | 11/16/09    | 0 - 1.2             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-030-C                     | R4-030-C  | 11/16/09    | 0 - 1.1             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-031-C                     | R4-031-C  | 11/16/09    | 0 - 0.8             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-032-C                     | R4-032-C  | 11/16/09    | 0 - 0.7             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-033-C                     | R4-033-C  | 11/17/09    | 0 - 0.4             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-034-C                     | R4-034-C  | 11/17/09    | 0 - 0.4             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-035-C                     | R4-035-C  | 11/17/09    | 0 - 0.8             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-036-C                     | R4-036-C  | 11/17/09    | 0 - 0.9             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-037-C                     | R4-037-C  | 11/17/09    | 0 - 0.6             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-038-C                     | R4-038-C  | 11/18/09    | 0 - 0.4             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-111-W                     | R4-111-W  | 11/16/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-112-W                     | R4-112-W  | 11/18/09    | 0 - 0.5             | 6                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-119-T                     | R4-119-T  | 11/17/09    | 0 - 0.5             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R4-126-H                     | R4-126-H  | 11/16/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| <b>Totals</b>                | <b>15</b> | <b>-</b>    | <b>-</b>            | <b>-</b>           | <b>15</b>       | <b>15</b> | <b>15</b> | <b>6</b> | <b>15</b>  | <b>6</b>   | <b>5</b> | <b>1</b>    | <b>3</b>      | <b>5</b>   |
| <b>Reach 5 Locations: 5</b>  |           |             |                     |                    |                 |           |           |          |            |            |          |             |               |            |
| R5-113-W                     | R5-113-W  | 11/18/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R5-114-W                     | R5-114-W  | 11/18/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R5-115-W                     | R5-115-W  | 11/18/09    | 0 - 0.5             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R5-116-W                     | R5-116-W  | 11/19/09    | 0 - 0.5             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R5-127-H                     | R5-127-H  | 11/18/09    | 0 - 0.5             | 6                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| <b>Totals</b>                | <b>5</b>  | <b>-</b>    | <b>-</b>            | <b>-</b>           | <b>5</b>        | <b>5</b>  | <b>5</b>  | <b>2</b> | <b>5</b>   | <b>2</b>   | <b>1</b> | <b>0</b>    | <b>1</b>      | <b>1</b>   |

Table 2-1a

Summary of Samples Collected During the 2009 Sediment Hand-coring and Surface Soil Sampling Effort

| Location                     | Sample ID | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors  | SVOC      | TOC      | Grain Size | Pesticides | AVS/ SEM | TCLP Metals | PCB Congeners | % Moisture |
|------------------------------|-----------|-------------|---------------------|--------------------|-----------------|-----------|-----------|----------|------------|------------|----------|-------------|---------------|------------|
| <b>Reach 6 Locations: 22</b> |           |             |                     |                    |                 |           |           |          |            |            |          |             |               |            |
| R6-051-C                     | R6-051-C  | 11/19/09    | 0 - 1.2             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-051-C                     | R6-051-CR | 11/19/09    | 0 - 1.2             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-052-C                     | R6-052-C  | 11/19/09    | 0 - 1.3             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-053-C                     | R6-053-C  | 11/19/09    | 0 - 1.2             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-054-C                     | R6-054-C  | 12/02/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-055-C                     | R6-055-C  | 11/17/09    | 0 - 1.1             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-056-C                     | R6-056-C  | 11/17/09    | 0 - 1.2             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-056-C                     | R6-056-CR | 11/17/09    | 0 - 1.2             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-057-C                     | R6-057-C  | 11/17/09    | 0 - 1.4             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-058-C                     | R6-058-C  | 11/18/09    | 0 - 2.2             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-059-C                     | R6-059-C  | 11/18/09    | 0 - 1.3             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-060-C                     | R6-060-C  | 11/18/09    | 0 - 0.8             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-061-C                     | R6-061-C  | 11/18/09    | 0 - 4               | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-062-C                     | R6-062-C  | 11/19/09    | 0 - 3.7             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-063-C                     | R6-063-C  | 11/19/09    | 0 - 1.1             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-064-C                     | R6-064-C  | 11/19/09    | 0 - 1.4             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-065-C                     | R6-065-C  | 11/19/09    | 0 - 2.4             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-066-C                     | R6-066-C  | 11/25/09    | 0 - 1.9             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-067-C                     | R6-067-C  | 11/25/09    | 0 - 2.1             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-117-W                     | R6-117-W  | 12/02/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-128-H                     | R6-128-H  | 12/02/09    | 0 - 0.5             | 6                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R6-129-H                     | R6-129-H  | 12/02/09    | 0 - 0.5             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| <b>Totals</b>                | <b>22</b> | <b>-</b>    | <b>-</b>            | <b>-</b>           | <b>22</b>       | <b>22</b> | <b>22</b> | <b>8</b> | <b>22</b>  | <b>8</b>   | <b>7</b> | <b>1</b>    | <b>7</b>      | <b>7</b>   |
| <b>Reach 7 Locations: 51</b> |           |             |                     |                    |                 |           |           |          |            |            |          |             |               |            |
| R7-068-C                     | R7-068-C  | 11/25/09    | 0 - 2.1             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-068-C                     | R7-068-CR | 11/25/09    | 0 - 2.1             | 8                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-069-C                     | R7-069-C  | 11/25/09    | 0 - 2.4             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-070-C                     | R7-070-C  | 11/25/09    | 0 - 2.4             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-071-C                     | R7-071-C  | 11/25/09    | 0 - 1.5             | 5                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-072-C                     | R7-072-C  | 11/24/09    | 0 - 0.8             | 4                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-073-C                     | R7-073-C  | 11/24/09    | 0 - 2.4             | 7                  | 1               | 1         | 1         | 1        | 1          | 1          | 1        | 1           | 1             | 1          |

Table 2-1a  
Summary of Samples Collected During the 2009 Sediment Hand-coring and Surface Soil Sampling Effort

| Location | Sample ID | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | SVOC | TOC | Grain Size | Pesticides | AVS/ SEM | TCLP Metals | PCB Congeners | % Moisture |
|----------|-----------|-------------|---------------------|--------------------|-----------------|----------|------|-----|------------|------------|----------|-------------|---------------|------------|
| R7-074-C | R7-074-C  | 11/24/09    | 0 - 2.3             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-075-C | R7-075-C  | 11/24/09    | 0 - 2.1             | 8                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-076-C | R7-076-C  | 11/24/09    | 0 - 2               | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-077-C | R7-077-C  | 11/24/09    | 0 - 1.2             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-078-C | R7-078-C  | 12/02/09    | 0 - 4               | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-079-C | R7-079-C  | 12/02/09    | 0 - 2.4             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-080-C | R7-080-C  | 12/02/09    | 0 - 1.7             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-081-C | R7-081-C  | 12/02/09    | 0 - 1.7             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-082-C | R7-082-C  | 11/30/09    | 0 - 1.6             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
|          | R7-082-CR | 11/30/09    | 0 - 1.6             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-083-C | R7-083-C  | 11/30/09    | 0 - 3.3             | 7                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-084-C | R7-084-C  | 11/30/09    | 0 - 3.3             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-085-C | R7-085-C  | 11/30/09    | 0 - 1.6             | 7                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-086-C | R7-086-C  | 11/30/09    | 0 - 3.2             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-087-C | R7-087-C  | 11/30/09    | 0 - 2.1             | 8                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-088-C | R7-088-C  | 11/25/09    | 0 - 1               | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-089-C | R7-089-C  | 11/25/09    | 0 - 2.9             | 8                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-090-C | R7-090-C  | 11/25/09    | 0 - 3.5             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-091-C | R7-091-C  | 11/24/09    | 0 - 1.4             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-092-C | R7-092-C  | 11/24/09    | 0 - 1               | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-093-C | R7-093-C  | 11/24/09    | 0 - 0.9             | 7                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-094-C | R7-094-C  | 11/23/09    | 0 - 1               | 8                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-095-C | R7-095-C  | 11/23/09    | 0 - 1.3             | 7                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
|          | R7-095-CR | 11/23/09    | 0 - 1.3             | 7                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-096-C | R7-096-C  | 11/23/09    | 0 - 1.3             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-097-C | R7-097-C  | 11/23/09    | 0 - 0.9             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-098-C | R7-098-C  | 11/23/09    | 0 - 1.9             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-099-C | R7-099-C  | 11/23/09    | 0 - 1.3             | 8                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-100-C | R7-100-C  | 11/23/09    | 0 - 1.2             | 8                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-101-C | R7-101-C  | 11/30/09    | 0 - 0.5             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-102-C | R7-102-C  | 11/30/09    | 0 - 1.5             | 4                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |
| R7-103-C | R7-103-C  | 11/30/09    | 0 - 2.3             | 5                  | 1               | 1        | 1    | 1   | 1          | 1          | 1        | 1           | 1             | 1          |



Table 2-1a  
Summary of Samples Collected During the 2009 Sediment Hand-coring and Surface Soil Sampling Effort

| Location                                                 | Sample ID   | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors   | SVOC      | TOC        | Grain Size | Pesticides | AVS/ SEM  | TCLP Metals | PCB Congeners | % Moisture |
|----------------------------------------------------------|-------------|-------------|---------------------|--------------------|-----------------|------------|-----------|------------|------------|------------|-----------|-------------|---------------|------------|
| R7-104-C                                                 | R7-104-C    | 12/02/09    | 0 - 1               | 8                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-105-C                                                 | R7-105-C    | 11/30/09    | 0 - 1.4             | 8                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-106-C                                                 | R7-106-C    | 11/30/09    | 0 - 0.5             | 8                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-118-W                                                 | R7-118-W    | 11/30/09    | 0 - 0.5             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-120-T                                                 | R7-120-T-Z1 | 11/24/09    | 0 - 0.5             | 7                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
|                                                          | R7-120-T-Z2 | 11/24/09    | 0.5 - 2.1           | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-121-T                                                 | R7-121-T-Z1 | 12/02/09    | 0 - 0.5             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-122-T                                                 | R7-122-T-Z1 | 11/25/09    | 0 - 0.5             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
|                                                          | R7-122-T-Z2 | 11/25/09    | 0.5 - 1             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-123-T                                                 | R7-123-T-Z1 | 11/23/09    | 0 - 0.5             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
|                                                          | R7-123-T-Z2 | 11/23/09    | 0.5 - 1             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-124-T                                                 | R7-124-T-Z1 | 11/23/09    | 0 - 0.4             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-125-T                                                 | R7-125-T-Z1 | 11/30/09    | 0 - 0.5             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
|                                                          | R7-125-T-Z2 | 11/30/09    | 0.5 - 0.8           | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-130-H                                                 | R7-130-H    | 11/30/09    | 0 - 0.5             | 4                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-131-H                                                 | R7-131-H    | 11/30/09    | 0 - 0.5             | 5                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-132-H                                                 | R7-132-H    | 11/25/09    | 0 - 0.5             | 4                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-133-H                                                 | R7-133-H    | 11/24/09    | 0 - 0.5             | 6                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| R7-134-H                                                 | R7-134-H    | 11/23/09    | 0 - 0.5             | 4                  | 1               | 1          | 1         | 1          | 1          | 1          | 1         | 1           | 1             | 1          |
| <b>Totals</b>                                            | <b>58</b>   | <b>-</b>    | <b>-</b>            | <b>-</b>           | <b>58</b>       | <b>58</b>  | <b>29</b> | <b>58</b>  | <b>58</b>  | <b>29</b>  | <b>18</b> | <b>2</b>    | <b>22</b>     | <b>18</b>  |
| <b>2009 Sediment and Surface Soil Original Samples:</b>  |             |             |                     |                    |                 |            |           |            |            |            |           |             |               |            |
|                                                          |             |             |                     |                    | <b>99</b>       | <b>99</b>  | <b>43</b> | <b>99</b>  | <b>99</b>  | <b>43</b>  | <b>28</b> | <b>4</b>    | <b>31</b>     | <b>28</b>  |
| <b>2009 Sediment and Surface Soil Duplicate Samples:</b> |             |             |                     |                    |                 |            |           |            |            |            |           |             |               |            |
|                                                          |             |             |                     |                    | <b>5</b>        | <b>5</b>   | <b>3</b>  | <b>5</b>   | <b>5</b>   | <b>3</b>   | <b>3</b>  | <b>0</b>    | <b>3</b>      | <b>3</b>   |
| <b>Total 2009 Sediment and Surface Soil Samples:</b>     |             |             |                     |                    |                 |            |           |            |            |            |           |             |               |            |
|                                                          |             |             |                     |                    | <b>104</b>      | <b>104</b> | <b>46</b> | <b>104</b> | <b>104</b> | <b>46</b>  | <b>31</b> | <b>4</b>    | <b>34</b>     | <b>31</b>  |

Key:

- AVS = Acid Volatile Sulfides.  
 -C = Hand-core creek location/sample.  
 -CR = Duplicate hand-core sample.  
 -H = Historical channel location/sample.  
 PCB = Polychlorinated biphenyl.  
 SEM = Simultaneously extracted metals.  
 SVOC = Semivolatile organic compound.
- T = Tributary location/sample.  
 TCLP = Toxicity characteristic leaching procedure.  
 TOC = Total organic carbon.  
 -W = Wetland location/sample.  
 -Z = Sample depth interval consecutively numbered.  
 % = Percent.

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location              | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|-----------------------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| Reach 2 Locations: 15 |               |             |                     |                    |                 |          |         |         |     |            |          |               |             |            |
| R2-001-V              | R2-001-V-Z1P  | 5/18/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-001-V-Z1P2 | 5/24/10     | 0 - 1               | 1                  |                 |          |         |         |     |            |          | 1             |             |            |
|                       | R2-001-V-Z1a  | 5/18/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|                       | R2-001-V-Z1b  | 5/18/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|                       | R2-001-V-Z2   | 5/18/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-001-V-Z3   | 5/18/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-001-V-Z4   | 5/18/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-001-V-Z5   | 5/18/10     | 4 - 5               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-001-V-Z6   | 5/18/10     | 6 - 7               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-002-V-Z1P  | 5/18/10     | 0 - 1               | 10                 | 1               | 1        |         | 1       | 1   | 1          | 1        | 1             |             | 1          |
| R2-002-V              | R2-002-V-Z1   | 5/18/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-002-V-Z2   | 5/18/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-002-V-Z3   | 5/18/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-002-V-Z4   | 5/18/10     | 3 - 4               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|                       | R2-002-V-Z5   | 5/18/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-002-V-R    | 5/18/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-002-V-Z6   | 5/18/10     | 6 - 7.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-003-V-Z1P  | 5/18/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-003-V-Z1P2 | 5/24/10     | 0 - 1               | 1                  |                 |          |         |         |     |            |          | 1             |             |            |
|                       | R2-003-V-Z1   | 5/18/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R2-003-V              | R2-003-V-Z2   | 5/18/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-003-V-Z3   | 5/18/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-003-V-Z4   | 5/18/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-003-V-Z5   | 5/18/10     | 4 - 5               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       | R2-003-V-Z6   | 5/18/10     | 6 - 7               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|                       |               |             |                     |                    |                 |          |         |         |     |            |          |               |             |            |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R2-004-V | R2-004-V-Z1P  | 5/18/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-004-V-Z1P2 | 5/24/10     | 0 - 1               | 1                  |                 |          |         |         |     |            |          | 1             |             |            |
|          | R2-004-V-Z1   | 5/18/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-004-V-Z2   | 5/18/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-004-V-R    | 5/18/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-004-V-Z3   | 5/18/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-004-V-Z4   | 5/18/10     | 3 - 3.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-004-V-Z5   | 5/18/10     | 4.5 - 5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-005-V-Z1P  | 5/19/10     | 0 - 1               | 10                 | 1               | 1        | 1       | 1       | 1   | 1          | 1        | 1             |             | 1          |
|          | R2-005-V-Z1   | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R2-005-V | R2-005-V-Z2   | 5/19/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-005-V-Z3   | 5/19/10     | 2 - 3               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R2-005-V-Z4   | 5/19/10     | 3 - 4               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             | 1           | 1          |
|          | R2-005-V-Z5   | 5/19/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-005-V-Z6   | 5/19/10     | 6 - 7               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z1P  | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z1P2 | 5/24/10     | 0 - 1               | 1                  |                 |          |         |         |     |            |          | 1             |             |            |
|          | R2-006-V-Z1   | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z2   | 5/19/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z3   | 5/19/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R2-006-V | R2-006-V-R    | 5/19/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z4   | 5/19/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z5a  | 5/19/10     | 4 - 5               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-006-V-Z5b  | 5/19/10     | 5 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R2-007-V | R2-007-V-Z1P  | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-007-V-Z1P2 | 5/25/10     | 0 - 1               | 1                  |                 |          |         |         |     |            |          | 1             |             |            |
|          | R2-007-V-Z1   | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-007-V-Z2   | 5/19/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-007-V-Z3   | 5/19/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-007-V-Z4   | 5/19/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-007-V-Z5a  | 5/19/10     | 4 - 5               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-007-V-Z5b  | 5/19/10     | 5 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-008-V-Z1P  | 5/19/10     | 0 - 1               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        | 1             |             | 1          |
|          | R2-008-V-Z1   | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
| R2-008-V | R2-008-V-Z2   | 5/19/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-008-V-Z3   | 5/19/10     | 2 - 3               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               | 1           | 1          |
|          | R2-008-V-Z4   | 5/19/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-008-V-Z5   | 5/19/10     | 4.5 - 5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-V-Z1P  | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-V-Z1P2 | 5/25/10     | 0 - 1               | 1                  |                 |          |         |         |     |            |          | 1             |             |            |
| R2-009-V | R2-009-V-Z1   | 5/19/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-V-Z2   | 5/19/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-V-Z3   | 5/19/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-V-Z4   | 5/19/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-VR     | 5/19/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |
|          | R2-009-V-Z5   | 5/19/10     | 4 - 5.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1        |               |             | 1          |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|--------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R2-010-V | R2-010-V-Z1  | 5/25/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R2-010-V-Z1a | 5/25/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R2-010-V-Z1b | 5/25/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R2-010-V-Z2  | 5/25/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-010-V-Z3  | 5/25/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-010-V-Z4  | 5/25/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-010-V-Z5  | 5/25/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-010-V-Z6  | 5/25/10     | 6 - 8               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-010-VR    | 5/25/10     | 6 - 8               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-010-V-Z7a | 5/25/10     | 8 - 9               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R2-011-V | R2-010-V-Z7b | 5/25/10     | 9 - 10              | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-011-V-Z1  | 5/25/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R2-011-V-Z1a | 5/25/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-011-V-Z1b | 5/25/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-011-V-Z2  | 5/25/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R2-011-V-Z3  | 5/25/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R2-011-V-Z4  | 5/25/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R2-011-V-Z5  | 5/25/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R2-011-V-Z6  | 5/25/10     | 6 - 8               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R2-011-V-Z7  | 5/25/10     | 8 - 10              | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
| R2-012-V | R2-011-V-Z8  | 5/25/10     | 10 - 11.5           | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R2-012-V-Z1  | 5/25/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R2-012-V-Z1a | 5/25/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-012-V-Z1b | 5/25/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-012-V-Z2  | 5/25/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-012-V-Z3  | 5/25/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-012-V-Z4  | 5/25/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-012-VR    | 5/25/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-012-V-Z5  | 5/25/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-012-V-Z6  | 5/25/10     | 6 - 8               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-012-V-Z7  | 5/25/10     | 8 - 9               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|--------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R2-013-V | R2-013-V-Z1  | 5/25/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R2-013-V-Z1a | 5/25/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R2-013-V-Z1b | 5/25/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R2-013-V-Z2  | 5/25/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-013-V-Z3  | 5/25/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-013-V-Z4  | 5/25/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-013-V-Z5  | 5/25/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-013-V-Z6  | 5/25/10     | 6 - 8               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-013-V-Z7  | 5/25/10     | 8 - 10              | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-013-V-Z8  | 5/25/10     | 10 - 12             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-014-V-Z1  | 5/25/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R2-014-V-Z1a | 5/25/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
| R2-014-V | R2-014-V-Z1b | 5/25/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-014-V-Z2  | 5/25/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-014-V-Z3  | 5/25/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-014-V-Z4  | 5/25/10     | 3 - 4               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R2-014-V-Z5  | 5/25/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-014-V-Z6  | 5/25/10     | 6 - 8               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R2-014-V-Z7  | 5/25/10     | 8 - 10              | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-015-V-Z1  | 5/25/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R2-015-V-Z1a | 5/25/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-015-V-Z1b | 5/25/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R2-015-V-Z2  | 5/25/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R2-015-V | R2-015-V-Z3  | 5/25/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-015-V-Z4  | 5/25/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-015-V-Z5  | 5/25/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-015-V-Z6  | 5/25/10     | 6 - 8               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-015-V-Z7a | 5/25/10     | 8 - 9               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R2-015-V-Z7b | 5/25/10     | 9 - 9.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| Reach 2  | 132          |             |                     |                    | 120             | 120      | 88      | 32      | 112 | 112        | 2        | 23            | 6           | 112        |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location              | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses          | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC               | Grain Size | AVS/ SEM | PCB Congeners         | TCLP Metals | % Moisture |
|-----------------------|--------------|-------------|---------------------|-----------------------------|-----------------|----------|---------|---------|-------------------|------------|----------|-----------------------|-------------|------------|
| Reach 3 Locations: 12 |              |             |                     |                             |                 |          |         |         |                   |            |          |                       |             |            |
|                       |              |             |                     | Total Number of Samples: 86 |                 |          |         |         | Ponar Samples: 12 |            |          | Vibracore Samples: 74 |             |            |
| R3-016-V              | R3-016-V-Z1  | 5/26/10     | 0 - 1               | 5                           |                 |          |         |         | 1                 | 1          | 1        | 1                     |             |            |
|                       | R3-016-V-Z1a | 5/26/10     | 0 - 0.5             | 4                           | 1               | 1        | 1       |         |                   |            |          |                       |             |            |
|                       | R3-016-V-Z1b | 5/26/10     | 0.5 - 1             | 4                           | 1               | 1        | 1       |         |                   |            |          |                       |             |            |
|                       | R3-016-V-Z2  | 5/26/10     | 1 - 2               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-016-V-Z3  | 5/26/10     | 2 - 3               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-016-V-Z4  | 5/26/10     | 3 - 4               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-016-VR    | 5/26/10     | 3 - 4               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-016-V-Z5  | 5/26/10     | 4 - 6               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-016-V-Z6  | 5/26/10     | 6 - 8               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-016-V-Z7  | 5/26/10     | 8 - 9               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-017-V-Z1  | 5/26/10     | 0 - 1               | 4                           |                 |          |         |         | 1                 | 1          |          | 1                     |             | 1          |
|                       | R3-017-V-Z1a | 5/26/10     | 0 - 0.5             | 4                           | 1               | 1        | 1       |         |                   |            |          |                       |             |            |
| R3-017-V              | R3-017-V-Z1b | 5/26/10     | 0.5 - 1             | 4                           | 1               | 1        | 1       |         |                   |            |          |                       |             |            |
|                       | R3-017-V-Z2  | 5/26/10     | 1 - 2               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-017-V-Z3  | 5/26/10     | 2 - 3               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-017-V-Z4  | 5/26/10     | 3 - 4               | 8                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       | 1           | 1          |
|                       | R3-017-V-Z5  | 5/26/10     | 4 - 6               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-017-VR    | 5/26/10     | 4 - 6               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-017-V-Z6  | 5/26/10     | 6 - 8               | 8                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       | 1           | 1          |
|                       | R3-017-V-Z7  | 5/26/10     | 8 - 8.5             | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z1  | 5/25/10     | 0 - 1               | 5                           |                 |          |         |         | 1                 | 1          | 1        | 1                     |             |            |
|                       | R3-018-V-Z1a | 5/25/10     | 0 - 0.5             | 4                           | 1               | 1        | 1       |         |                   |            |          |                       |             |            |
|                       | R3-018-V-Z1b | 5/25/10     | 0.5 - 1             | 4                           | 1               | 1        | 1       |         |                   |            |          |                       |             |            |
| R3-018-V              | R3-018-V-Z2  | 5/25/10     | 1 - 2               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z3  | 5/25/10     | 2 - 3               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z4  | 5/25/10     | 3 - 4               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z5  | 5/25/10     | 4 - 6               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z6  | 5/25/10     | 6 - 8               | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z7  | 5/25/10     | 8 - 10              | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |
|                       | R3-018-V-Z8  | 5/25/10     | 10 - 12             | 7                           | 1               | 1        | 1       | 1       | 1                 | 1          |          |                       |             | 1          |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|--------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R3-019-V | R3-019-V-Z1  | 5/26/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R3-019-V-Z1a | 5/26/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R3-019-V-Z1b | 5/26/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R3-019-V-Z2  | 5/26/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-019-V-Z3  | 5/26/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-019-V-Z4  | 5/26/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R3-020-V | R3-020-V-Z1  | 5/26/10     | 0 - 1               | 5                  |                 |          |         |         | 1   | 1          | 1        | 1             |             |            |
|          | R3-020-V-Z1a | 5/26/10     | 0 - 0.5             | 4                  | 1               | 1        |         | 1       |     |            |          |               |             |            |
|          | R3-020-V-Z1b | 5/26/10     | 0.5 - 1             | 4                  | 1               | 1        |         | 1       |     |            |          |               |             |            |
|          | R3-020-V-Z2  | 5/26/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R3-020-V-Z3  | 5/26/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
|          | R3-020-V-Z4  | 5/26/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |
| R3-021-V | R3-021-V-Z1  | 5/26/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
|          | R3-021-V-Z1a | 5/26/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R3-021-V-Z1b | 5/26/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R3-021-V-Z2  | 5/26/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-021-V-Z3  | 5/26/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-022-V-Z1  | 5/26/10     | 0 - 1               | 4                  |                 |          |         |         | 1   | 1          |          | 1             |             | 1          |
| R3-022-V | R3-022-V-Z1a | 5/26/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R3-022-V-Z1b | 5/26/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R3-022-V-Z2  | 5/26/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-022-VZ    | 5/26/10     | 1 - 2               | 6                  | 1               | 1        | 1       | 1       | 1   |            |          |               |             | 1          |
|          | R3-022-V-Z3  | 5/26/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-022-V-Z4  | 5/26/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R3-022-V | R3-022-V-Z5  | 5/26/10     | 4 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R3-022-V-Z6  | 5/26/10     | 6 - 6.8             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |



Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID             | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury             | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |                   |   |    |   |    |  |                       |  |  |
|----------|-----------------------|-------------|---------------------|--------------------|-----------------------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|-------------------|---|----|---|----|--|-----------------------|--|--|
| R3-023-V | R3-023-V-Z1           | 5/26/10     | 0 - 1               | 4                  |                             |          |         |         | 1   | 1          |          | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-023-V-Z1a          | 5/26/10     | 0 - 0.5             | 4                  | 1                           | 1        |         | 1       |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-023-V-Z1b          | 5/26/10     | 0.5 - 0.9           | 4                  | 1                           | 1        |         | 1       |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-023-V-Z2           | 5/26/10     | 1 - 2               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-024-V-Z1           | 5/26/10     | 0 - 1               | 4                  |                             |          |         |         | 1   | 1          |          | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
| R3-024-V | R3-024-V-Z1a          | 5/26/10     | 0 - 0.5             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-024-V-Z1b          | 5/26/10     | 0.5 - 1             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-024-V-Z2           | 5/26/10     | 1 - 2               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-024-V-Z3           | 5/26/10     | 2 - 3               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-024-V-Z4           | 5/26/10     | 3 - 4               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
| R3-024-V | R3-024-V-Z5           | 5/26/10     | 4 - 6               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-024-V-Z6           | 5/26/10     | 6 - 8               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-025-V-Z1           | 5/26/10     | 0 - 1               | 4                  |                             |          |         |         | 1   | 1          |          | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-025-V-Z1a          | 5/26/10     | 0 - 0.5             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-025-V-Z1b          | 5/26/10     | 0.5 - 1             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
| R3-026-V | R3-026-V-Z1           | 5/27/10     | 0 - 1               | 4                  |                             |          |         |         | 1   | 1          |          | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-026-V-Z1a          | 5/27/10     | 0 - 0.5             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-026-V-Z1b          | 5/27/10     | 0.5 - 1             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-026-V-Z2           | 5/27/10     | 1 - 2               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-026-V-Z3           | 5/27/10     | 2 - 3               | 8                  | 1                           | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
| R3-026-V | R3-026-V-Z4           | 5/27/10     | 3 - 4               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-027-V-Z1           | 5/27/10     | 0 - 1               | 6                  |                             |          |         |         | 1   | 1          | 1        | 1             |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-027-V-Z1a          | 5/27/10     | 0 - 0.5             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-027-V-Z1b          | 5/27/10     | 0.5 - 1             | 4                  | 1                           | 1        | 1       |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | R3-027-V-Z2           | 5/27/10     | 1 - 2               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
| R3-027-V | R3-027-V-Z3           | 5/27/10     | 2 - 3               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R3-027-V-Z4           | 5/27/10     | 3 - 4               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | 86                    |             |                     |                    |                             |          |         |         |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |
|          | Reach 5 Locations: 12 |             |                     |                    | Total Number of Samples: 80 |          |         |         | 74  | 74         | 74       | 58            | 16          | 62         | 61                | 4 | 19 | 3 | 59 |  |                       |  |  |
|          | Reach 5 Locations: 12 |             |                     |                    |                             |          |         |         |     |            |          |               |             |            | Ponar Samples: 11 |   |    |   |    |  | Vibracore Samples: 69 |  |  |
| R5-039-V | R5-039-V-Z1           | 5/21/10     | 0 - 1               | 7                  | 1                           | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |                   |   |    |   |    |  |                       |  |  |
|          | R5-039-V-Z2           | 5/21/10     | 1 - 1.9             | 4                  | 1                           | 1        | 1       | 1       |     |            |          |               |             |            |                   |   |    |   |    |  |                       |  |  |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|--------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R5-040-V | R5-040-V-Z1  | 5/20/10     | 0 - 1               | 3                  |                 |          |         |         | 1   | 1          |          |               |             | 1          |
|          | R5-040-V-Z1a | 5/20/10     | 0 - 0.5             | 4                  | 1               | 1        |         | 1       |     |            |          |               |             |            |
|          | R5-040-V-Z1b | 5/20/10     | 0.5 - 1             | 5                  | 1               | 1        |         | 1       |     |            |          |               | 1           |            |
|          | R5-040-V-Z2  | 5/20/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-040-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R5-041-V | R5-040-V-Z4  | 5/20/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-040-V-Z5a | 5/20/10     | 4.5 - 5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z1  | 5/24/10     | 0 - 1               | 3                  |                 |          |         |         | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z1a | 5/24/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R5-041-V-Z1b | 5/24/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
| R5-042-V | R5-041-V-Z2  | 5/24/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z3  | 5/24/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z4  | 5/24/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z5a | 5/24/10     | 4 - 5               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z5b | 5/24/10     | 5 - 6               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R5-043-V | R5-041-V-Z6a | 5/24/10     | 6 - 7               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-041-V-Z6b | 5/24/10     | 7 - 7.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-042-V-Z1  | 5/20/10     | 0 - 1               | 3                  |                 |          |         |         | 1   | 1          |          |               |             | 1          |
|          | R5-042-V-Z1a | 5/20/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R5-042-V-Z1b | 5/20/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
| R5-043-V | R5-042-V-Z2  | 5/20/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-042-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-042-V-Z4  | 5/20/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-042-V-Z5a | 5/20/10     | 4.5 - 5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-043-V-Z1P | 5/20/10     | 0 - 1               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
| R5-043-V | R5-043-V-Z1  | 5/20/10     | 0 - 1               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-043-V-Z2  | 5/20/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-043-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-043-V-Z4  | 5/20/10     | 3 - 4               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R5-043-V-Z5a | 5/20/10     | 4 - 4.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-043-V-Z5b | 5/20/10     | 4.5 - 5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|----------|--------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|----------|---------------|-------------|------------|
| R5-044-V | R5-044-V-Z1  | 5/20/10     | 0 - 1               | 4                  |                 |          |         |         | 1   |            | 1        |               |             | 1          |
|          | R5-044-V-Z1a | 5/20/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R5-044-V-Z1b | 5/20/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R5-044-V-Z2  | 5/20/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-044-V-R   | 5/20/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-044-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R5-045-V | R5-045-V-Z1  | 5/20/10     | 0 - 1               | 4                  | 1               | 1        |         | 1       |     |            |          |               |             |            |
|          | R5-045-V-Z2  | 5/20/10     | 1 - 2               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R5-045-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-045-V-Z4  | 5/20/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-045-V-R   | 5/20/10     | 3 - 4               | 6                  | 1               | 1        | 1       | 1       | 1   |            |          |               |             | 1          |
|          | R5-045-V-Z5a | 5/20/10     | 4.5 - 5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R5-046-V | R5-046-V-Z1  | 5/20/10     | 0 - 1               | 3                  |                 |          |         |         | 1   | 1          |          |               |             | 1          |
|          | R5-046-V-Z1a | 5/20/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R5-046-V-Z1b | 5/20/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       |         |     |            |          |               |             |            |
|          | R5-046-V-Z2  | 5/20/10     | 1 - 2               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-046-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-046-V-Z4  | 5/20/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
| R5-047-V | R5-046-V-Z5a | 5/20/10     | 4 - 5               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-046-V-Z5b | 5/20/10     | 5 - 6               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R5-046-V-Z6a | 5/20/10     | 6 - 7               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-047-V-Z1  | 5/20/10     | 0 - 1               | 3                  |                 |          |         |         | 1   | 1          |          |               |             | 1          |
|          | R5-047-V-Z1a | 5/20/10     | 0 - 0.5             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
|          | R5-047-V-Z1b | 5/20/10     | 0.5 - 1             | 4                  | 1               | 1        | 1       | 1       |     |            |          |               |             |            |
| R5-047-V | R5-047-V-Z2  | 5/20/10     | 1 - 2               | 8                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               | 1           | 1          |
|          | R5-047-V-Z3  | 5/20/10     | 2 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          | R5-047-V-Z4  | 5/20/10     | 3 - 4               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          |          |               |             | 1          |
|          |              |             |                     |                    |                 |          |         |         |     |            |          |               |             |            |

Table 2-1b  
Summary of Samples Collected During the 2010 Vibracore Sampling Effort

| Location                                    | Sample ID    | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors                          | 16 PAHs | 34 PAHs | TOC | Grain Size                   | AVS/ SEM | PCB Congeners | TCLP Metals | % Moisture |
|---------------------------------------------|--------------|-------------|---------------------|--------------------|-----------------|-----------------------------------|---------|---------|-----|------------------------------|----------|---------------|-------------|------------|
| R5-048-V                                    | R5-048-V-Z1  | 5/21/10     | 0 - 1               | 3                  |                 |                                   |         |         | 1   | 1                            |          |               |             | 1          |
|                                             | R5-048-V-Z1a | 5/21/10     | 0 - 0.5             | 4                  | 1               | 1                                 | 1       |         |     |                              |          |               |             |            |
|                                             | R5-048-V-Z1b | 5/21/10     | 0.5 - 1             | 4                  | 1               | 1                                 | 1       |         |     |                              |          |               |             |            |
|                                             | R5-048-V-Z2  | 5/21/10     | 1 - 2               | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        |               |             | 1          |
|                                             | R5-048-V-Z3  | 5/21/10     | 2 - 3               | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        |               |             | 1          |
| R5-049-V                                    | R5-049-V-Z1  | 5/21/10     | 0 - 1               | 4                  |                 |                                   |         |         | 1   | 1                            |          | 1             |             | 1          |
|                                             | R5-049-V-Z1a | 5/21/10     | 0 - 0.5             | 4                  | 1               | 1                                 | 1       | 1       |     |                              |          |               |             |            |
|                                             | R5-049-V-Z1b | 5/21/10     | 0.5 - 1             | 4                  | 1               | 1                                 | 1       |         |     |                              |          |               |             |            |
|                                             | R5-049-V-Z2  | 5/21/10     | 1 - 2               | 8                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        | 1             | 1           | 1          |
|                                             | R5-049-V-Z3  | 5/21/10     | 2 - 3               | 8                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        | 1             | 1           | 1          |
| R5-050-V                                    | R5-049-V-Z4  | 5/21/10     | 3 - 4               | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        | 1             |             | 1          |
|                                             | R5-049-V-Z5a | 5/21/10     | 4 - 4.5             | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            |          |               |             | 1          |
|                                             | R5-050-V-Z1  | 5/21/10     | 0 - 1               | 5                  |                 |                                   |         |         | 1   | 1                            | 1        |               |             | 1          |
|                                             | R5-050-V-Z1a | 5/21/10     | 0 - 0.5             | 4                  | 1               | 1                                 | 1       | 1       |     |                              |          |               |             |            |
|                                             | R5-050-V-Z1b | 5/21/10     | 0.5 - 1             | 4                  | 1               | 1                                 | 1       | 1       |     |                              |          |               |             |            |
| R5-050-V                                    | R5-050-V-Z2  | 5/21/10     | 1 - 2               | 8                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        |               | 1           | 1          |
|                                             | R5-050-V-R   | 5/21/10     | 1 - 2               | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        |               |             | 1          |
|                                             | R5-050-V-Z3  | 5/21/10     | 2 - 3               | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        |               |             | 1          |
|                                             | R5-050-V-Z4  | 5/21/10     | 3 - 4               | 8                  | 1               | 1                                 | 1       | 1       | 1   | 1                            | 1        |               | 1           | 1          |
|                                             | R5-050-V-Z5a | 5/21/10     | 4 - 4.5             | 7                  | 1               | 1                                 | 1       | 1       | 1   | 1                            |          |               |             | 1          |
| Reach 5                                     | 80           |             |                     |                    | 71              | 71                                | 47      | 24      | 60  | 58                           | 2        | 4             | 10          | 60         |
| 2010 Vibracore and Ponar Original Samples:  |              |             |                     |                    | 252             | 252                               | 184     | 68      | 221 | 220                          | 8        | 46            | 19          | 218        |
| 2010 Vibracore and Ponar Duplicate Samples: |              |             |                     |                    | 13              | 13                                | 9       | 4       | 13  | 11                           | 0        | 0             | 0           | 13         |
| Total 2010 Vibracore and Ponar Samples:     |              |             |                     |                    | 265             | 265                               | 193     | 72      | 234 | 231                          | 8        | 46            | 19          | 231        |
| Total 2010 Vibracoring and Ponar Locations: |              |             |                     |                    | 39              | Total 2010 Vibracore Samples: 254 |         |         |     | Total 2010 Ponar Samples: 44 |          |               |             |            |

Key:

AVS = Acid Volatile Sulfides.  
 PCB = Polychlorinated biphenyl.  
 SEM = Simultaneously extracted metals.  
 SVOC = Semivolatile organic compound.  
 TCLP = Toxicity characteristic leaching procedure.  
 TOC = Total organic carbon.  
 -V= Vibracore location/sample.  
 -VR = Duplicate vibracore sample.  
 -Z = Sample depth interval consecutively numbered.  
 % = Percent.

Table 2-1c

Summary of Samples Collected During the 2010 Data Gap Sediment Hand-coring Effort

| Location              | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | % Moisture |
|-----------------------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|------------|
| Reach 4 Locations: 9  |               |             |                     |                    |                 |          |         |         |     |            |            |
| R4-135-C              | R4-135-C-Comp | 6/21/10     | 0 - 0.8             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R4-135-C-Z1a  | 6/21/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-136-C              | R4-136-C-Z1a  | 6/21/10     | 0 - 0.4             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-137-C              | R4-137-C-Comp | 6/21/10     | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-138-C              | R4-138-C-Comp | 6/21/10     | 0 - 0.4             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-139-C              | R4-139-C-Z1a  | 6/22/10     | 0 - 0.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-140-C              | R4-140-C-Z1a  | 6/23/10     | 0 - 0.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-141-C              | R4-141-C-Comp | 6/23/10     | 0 - 0.8             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R4-141-C-Z1a  | 6/23/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R4-141-CR     | 6/23/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-142-C              | R4-142-C-Z1a  | 6/23/10     | 0 - 0.2             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R4-143-C              | R4-143-C-Z1a  | 6/23/10     | 0 - 0.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| Reach 4 Samples 12    |               |             |                     |                    |                 |          |         |         |     |            |            |
| Reach 6 Locations: 28 |               |             |                     |                    |                 |          |         |         |     |            |            |
| R6-144-C              | R6-144-C-Comp | 7/2/10      | 0 - 1.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R6-144-C-Z1a  | 7/2/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-145-C              | R6-145-C-Comp | 7/2/10      | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R6-145-C-Z1a  | 7/2/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-146-C              | R6-146-C-Comp | 7/2/10      | 0 - 1.1             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R6-146-C-Z1a  | 7/2/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-147-C              | R6-147-C-Comp | 7/1/10      | 0 - 0.8             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R6-147-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-148-C              | R6-148-C-Comp | 7/1/10      | 0 - 0.9             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R6-148-CR     | 7/1/10      | 0 - 0.9             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-149-C              | R6-149-C-Comp | 7/1/10      | 0 - 0.9             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-150-C              | R6-150-C-Comp | 7/1/10      | 0 - 0.9             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-151-C              | R6-151-C-Comp | 7/2/10      | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-152-C              | R6-152-C-Comp | 7/2/10      | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                       | R6-152-CR     | 7/2/10      | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |

Table 2-1c  
Summary of Samples Collected During the 2010 Data Gap Sediment Hand-coring Effort

| Location | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | % Moisture |
|----------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|------------|
| R6-153-C | R6-153-C-Comp | 7/2/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-154-C | R6-154-C-Comp | 7/1/10      | 0 - 1.1             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R6-154-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-155-C | R6-155-C-Comp | 7/1/10      | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-156-C | R6-156-C-Comp | 7/1/10      | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-157-C | R6-157-C-Comp | 7/1/10      | 0 - 1.2             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-157-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-158-C | R6-158-C-Comp | 7/1/10      | 0 - 1.4             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-158-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-159-C | R6-158-CR     | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-159-C-Comp | 7/1/10      | 0 - 1.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-160-C | R6-159-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-160-C-Comp | 7/1/10      | 0 - 1.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-161-C | R6-160-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-161-C-Z1   | 7/1/10      | 0.5 - 1.5           | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-162-C | R6-161-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-162-C-Comp | 6/30/10     | 0 - 0.8             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-163-C | R6-163-C-Z1   | 6/30/10     | 0.5 - 1.4           | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-163-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-164-C | R6-164-C-Comp | 6/30/10     | 0 - 1.4             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-164-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-165-C | R6-165-C-Comp | 6/30/10     | 0 - 1.6             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-165-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-166-C | R6-166-C-Comp | 6/30/10     | 0 - 2.1             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-166-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-167-C | R6-167-C-Comp | 6/30/10     | 0 - 1.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-167-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R6-168-C | R6-168-C-Comp | 6/30/10     | 0 - 1.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R6-168-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |

Table 2-1c  
Summary of Samples Collected During the 2010 Data Gap Sediment Hand-coring Effort

| Location                     | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses            | Metals/<br>Mercury | Aroclors | 16 PAHs | 34 PAHs                            | TOC | Grain Size | % Moisture |
|------------------------------|---------------|-------------|---------------------|-------------------------------|--------------------|----------|---------|------------------------------------|-----|------------|------------|
| R6-169-C                     | R6-169-C-Comp | 6/28/10     | 0 - 1.4             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R6-169-C-Z1a  | 6/28/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R6-170-C                     | R6-170-C-Comp | 6/25/10     | 0 - 1.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R6-170-C-Z1a  | 6/25/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R6-171-C                     | R6-171-C-Comp | 6/25/10     | 0 - 1.2             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R6-171-C-Z1a  | 6/25/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| <b>Reach 6 Samples 50</b>    |               |             |                     |                               |                    |          |         |                                    |     |            |            |
| <b>Reach 7 locations: 34</b> |               |             |                     | <b>Grab Creek Samples: 31</b> |                    |          |         | <b>Composite Creek Samples: 24</b> |     |            |            |
| R7-172-C                     | R7-172-C-Comp | 6/25/10     | 0 - 0.9             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-172-C-Z1a  | 6/25/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-173-C                     | R7-173-C-Comp | 6/25/10     | 0 - 1.1             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-173-C-Z1a  | 6/25/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-174-C                     | R7-174-C-Comp | 6/25/10     | 0 - 1.2             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-174-C-Z1a  | 6/25/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-175-C                     | R7-175-C-Z1   | 6/24/10     | 0.5 - 1.4           | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-175-C-Z1a  | 6/24/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-176-C                     | R7-176-C-Comp | 6/24/10     | 0 - 0.9             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-176-C-Z1a  | 6/24/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-177-C                     | R7-177-CR     | 6/24/10     | 0.5 - 1.1           | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-177-C-Z1   | 6/24/10     | 0.5 - 1.1           | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-178-C                     | R7-177-C-Z1a  | 6/24/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-178-C-Z1   | 6/24/10     | 0.5 - 1.2           | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-179-C                     | R7-178-C-Z1a  | 6/24/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-179-C-Comp | 6/23/10     | 0 - 0.7             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-180-C                     | R7-179-C-Z1a  | 6/23/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-180-C-Comp | 6/23/10     | 0 - 1.1             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-181-C                     | R7-180-C-Z1a  | 6/23/10     | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-181-C-Comp | 7/1/10      | 0 - 1.3             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
| R7-182-C                     | R7-181-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |
|                              | R7-182-C-COMP | 7/1/10      | 0 - 0.8             | 7                             | 1                  | 1        | 1       | 1                                  | 1   | 1          | 1          |

Table 2-1c  
Summary of Samples Collected During the 2010 Data Gap Sediment Hand-coring Effort

| Location | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | % Moisture |
|----------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|------------|
| R7-183-C | R7-183-C-Comp | 7/1/10      | 0 - 1.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|          | R7-183-C-Z1a  | 7/1/10      | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-184-C | R7-184-C-Comp | 6/30/10     | 0 - 0.75            | 7                  | 1               | 1        |         | 1       | 1   | 1          | 1          |
| R7-185-C | R7-185-C-Comp | 6/30/10     | 0 - 0.7             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-185-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-186-C | R7-186-C-Comp | 6/30/10     | 0 - 0.7             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-186-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        |         | 1       | 1   | 1          | 1          |
| R7-187-C | R7-187-C-Comp | 6/30/10     | 0 - 0.95            | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-187-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-188-C | R7-188-C-Z1   | 6/30/10     | 0.4 - 1.1           | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-188-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-189-C | R7-189-C-Comp | 6/30/10     | 0 - 1.2             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-189-CR     | 6/30/10     | 0 - 1.2             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-189-C-Z1a  | 6/30/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-190-C | R7-190-C-Comp | 6/30/10     | 0 - 0.7             | 7                  | 1               | 1        |         | 1       | 1   | 1          | 1          |
| R7-191-C | R7-191-C-Comp | 6/29/10     | 0 - 0.9             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-191-C-Z1a  | 6/29/10     | 0 - 0.5             | 7                  | 1               | 1        |         | 1       | 1   | 1          | 1          |
| R7-192-C | R7-192-C-Z1a  | 6/29/10     | 0 - 0.3             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-193-C | R7-193-C-Comp | 6/29/10     | 0 - 0.8             | 7                  | 1               | 1        |         |         | 1   | 1          | 1          |
|          | R7-193-C-Z1a  | 6/29/10     | 0 - 0.5             | 7                  | 1               | 1        |         | 1       | 1   | 1          | 1          |
| R7-194-C | R7-194-C-Comp | 6/29/10     | 0 - 0.6             | 7                  | 1               | 1        |         | 1       | 1   | 1          | 1          |
| R7-195-C | R7-195-C-Comp | 6/29/10     | 0 - 0.6             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-196-C | R7-196-C-Comp | 6/29/10     | 0 - 1.3             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-196-C-Z1a  | 6/29/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-197-C | R7-197-C-Comp | 6/28/10     | 0 - 1.2             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-197-CR     | 6/28/10     | 0 - 1.2             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-197-C-Z1a  | 6/28/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
| R7-198-C | R7-198-C-Comp | 6/28/10     | 0 - 0.9             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |
|          | R7-198-C-Z1a  | 6/28/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       |         | 1   | 1          | 1          |



Table 2-1c

Summary of Samples Collected During the 2010 Data Gap Sediment Hand-coring Effort

| Location                          | Sample ID     | Sample Date | Sample Depth (feet) | Number of Analyses | Metals/ Mercury | Aroclors | 16 PAHs | 34 PAHs | TOC | Grain Size | % Moisture |
|-----------------------------------|---------------|-------------|---------------------|--------------------|-----------------|----------|---------|---------|-----|------------|------------|
| R7-199-C                          | R7-199-C-Comp | 6/28/10     | 0 - 1.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                                   | R7-199-C-Z1a  | 6/28/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-200-C                          | R7-200-C-Comp | 6/28/10     | 0 - 3               | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                                   | R7-200-C-Z1a  | 6/28/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-201-T                          | R7-201-T-Comp | 6/25/10     | 0 - 1.1             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-201-T                          | R7-201-T-Z1a  | 6/25/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-202-T                          | R7-202-T-Comp | 6/29/10     | 0 - 0.9             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-202-T                          | R7-202-T-Z1a  | 6/29/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-203-T                          | R7-203-T-Comp | 6/29/10     | 0 - 0.7             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                                   | R7-203-T-Z1a  | 6/29/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-204-T                          | R7-204-T-Z1a  | 6/29/10     | 0 - 0.3             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| R7-205-T                          | R7-205-T-Comp | 6/29/10     | 0 - 0.8             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
|                                   | R7-205-T-Z1a  | 6/29/10     | 0 - 0.5             | 7                  | 1               | 1        | 1       | 1       | 1   | 1          | 1          |
| Reach 7 Samples                   |               |             |                     |                    | 64              | 64       | 47      | 17      | 64  | 64         | 64         |
| 2010 Hand-core Original Samples:  |               |             |                     |                    | 119             | 119      | 84      | 35      | 119 | 119        | 119        |
| 2010 Hand-core Duplicate Samples: |               |             |                     |                    | 7               | 7        | 5       | 2       | 7   | 7          | 7          |
| Total 2010 Hand-core Samples:     |               |             |                     |                    | 126             | 126      | 89      | 37      | 126 | 126        | 126        |

Key:

-C = Hand-core creek location/sample.

-CR = Duplicate hand-core sample.

-comp = Composite sample from entire hand-core.

PAH = Polynuclear aromatic hydrocarbon.

PCB = Polychlorinated biphenyl.

-T = Tributary location/sample.

TOC = Total organic carbon.

-Z1a = Sample collected from the 0-to-0.5-foot depth interval.

Z1 = Sample collected from the 0.5 to refusal depth interval.

% = Percent.

Table 2-2  
Data Gap Hand-core Sample Locations and Purpose

| Reach | Location Number              | Sample ID | Purpose      | Location Description                                                                               |
|-------|------------------------------|-----------|--------------|----------------------------------------------------------------------------------------------------|
| R4    | 135                          | R4-135-C  | Extent       | Downstream of R4-028-C, near SED-179 where sediment was recorded.                                  |
|       | 136                          | R4-136-C  | Extent       | Between R4-028-C and R4-029-C at the exit of the culvert.                                          |
|       | 137                          | R4-137-C  | Extent       | Between R4-029-C and R4-030-C in area with sediment >1 foot (SED 14).                              |
|       | 138                          | R4-138-C  | Source       | Multi-use industrial park between R4-030-C and R4-031-C.                                           |
|       | 139                          | R4-139-C  | Source       | Multi-use industrial park between R4-031-C and R4-032-C downstream of outfall.                     |
|       | 140                          | R4-140-C  | Extent       | Upstream of multi-use industrial park between R4-031-C and R4-032-C.                               |
|       | 141                          | R4-141-C  | Extent       | Between R4-032-C and R4-033-C in depositional area.                                                |
|       | 142                          | R4-142-C  | Source       | Between R4-033-C and R4-034-C downstream of tributary.                                             |
|       | 143                          | R4-143-C  | Source       | Between R4-034-C and R4-035-C downstream of bridge.                                                |
|       | <b>Total for Reach 4: 9</b>  |           |              |                                                                                                    |
| R6    | 144                          | R6-144-C  | Source       | Downstream of R6-051-C in depositional area on RDB.                                                |
|       | 145                          | R6-145-C  | Source       | Downstream of R6-052-C in depositional area on LDB behind obstruction.                             |
|       | 146                          | R6-146-C  | Confirmation | Near R6-052-C for confirmation.                                                                    |
|       | 147                          | R6-147-C  | Source       | Between R6-052-C and R6-053-C downstream of outfalls (on RDB).                                     |
|       | 148                          | R6-148-C  | Extent       | Between R6-053-C and R6-054-C (SED-115).                                                           |
|       | 149                          | R6-149-C  | Extent       | Between R6-053-C and R6-054-C downstream of side channel.                                          |
|       | 150                          | R6-150-C  | Extent       | Between R6-054-C and R6-055-C downstream of drainage.                                              |
|       | 151                          | R6-151-C  | Source       | Between R6-054-C and R6-055-C downstream of outfall.                                               |
|       | 152                          | R6-152-C  | Extent       | Between R6-054-C and R6-055-C in depositional area by drainage point.                              |
|       | 153                          | R6-153-C  | Extent       | Between R6-055-C and R6-054-C downstream of outfall.                                               |
|       | 154                          | R6-154-C  | Confirmation | Between R6-055-C and R6-056-C downstream of side channel for confirmation of R6-055-C PAH results. |
|       | 155                          | R6-155-C  | Extent       | Between R6-056-C and R6-057-C upstream of side channel.                                            |
|       | 156                          | R6-156-C  | Extent       | Between R6-057-C and R6-058-C downstream of first drainage area.                                   |
|       | 157                          | R6-157-C  | Extent       | Between R6-057-C and R6-058-C (probe for sediment).                                                |
|       | 158                          | R6-158-C  | Extent       | Between R6-057-C and R6-058-C downstream of second drainage area.                                  |
|       | 159                          | R6-159-C  | Extent       | Between R6-057-C and R6-058-C in depositional area.                                                |
|       | 160                          | R6-160-C  | Extent       | Between R6-057-C and R6-058-C upstream of obstruction near R6-058-C.                               |
|       | 161                          | R6-161-C  | Extent       | Between R6-058-C and R6-059-C in depositional area.                                                |
|       | 162                          | R6-162-C  | Extent       | Between R6-058-C and R6-059-C in depositional area.                                                |
|       | 163                          | R6-163-C  | Extent       | Between R6-059-C and R6-060-C downstream of outfall.                                               |
|       | 164                          | R6-164-C  | Extent       | Between R6-060-C and R6-061-C downstream of outfall.                                               |
|       | 165                          | R6-165-C  | Extent       | Between R6-060-C and R6-061-C downstream of outfall.                                               |
|       | 166                          | R6-166-C  | Extent       | Between R6-061-C and R6-062-C in area of thicker sediment (point 337).                             |
|       | 167                          | R6-167-C  | Extent       | Between R6-061-C and R6-062-C (probe in the field to find sediment deposits).                      |
|       | 168                          | R6-168-C  | Source       | Between R6-062-C and R6-063-C in area of thicker sediment, downstream of outfall.                  |
|       | 169                          | R6-169-C  | Source       | Between R6-063-C and R6-064-C in area of thicker sediment, downstream of outfall (SED-334).        |
|       | 170                          | R6-170-C  | Source       | Between R6-067-C and R7-068-C downstream of outfalls.                                              |
|       | 171                          | R6-171-C  | Source       | Between R6-067-C and R7-068-C upstream of outfalls.                                                |
|       | <b>Total for Reach 6: 28</b> |           |              |                                                                                                    |
| R7    | 172                          | R7-172-C  | Source       | Between R7-068-C and R7-069-C in area of thicker sediment, downstream of outfalls.                 |
|       | 173                          | R7-173-C  | Extent       | Between R7-072-C and R7-073-C in area of thicker sediment (SED-318).                               |
|       | 174                          | R7-174-C  | Confirmation | Near R7-073-C as confirmation sample.                                                              |
|       | 175                          | R7-175-C  | Extent       | Between R7-073-C and R7-074-C - directly downstream of outfall.                                    |

Table 2-2  
Data Gap Hand-core Sample Locations and Purpose

| Reach                                     | Location Number | Sample ID | Purpose      | Location Description                                                                                   |
|-------------------------------------------|-----------------|-----------|--------------|--------------------------------------------------------------------------------------------------------|
| R7                                        | 176             | R7-176-C  | Extent       | Between R7-076-C and R7-077-C in area of thicker sediment (SED-307).                                   |
|                                           | 177             | R7-177-C  | Extent       | Between R7-077-C and R7-078-C in area of thicker sediment.                                             |
|                                           | 178             | R7-178-C  | Extent       | Between R7-079-C and R7-080-C downstream of tributary and outfall in area with thick sediment.         |
|                                           | 179             | R7-179-C  | Extent       | Between R7-080-C and R7-081-C in area of thicker sediment (SED-97).                                    |
|                                           | 180             | R7-180-C  | Extent       | Between R7-082-C and R7-083-C in area of thicker sediment downstream of road (SED-90 20-inches thick). |
|                                           | 181             | R7-181-C  | Extent       | Between R7-085-C and R7-086-C downstream of the two drainage areas downstream of R7-131-H).            |
|                                           | 182             | R7-182-C  | Extent       | Between R7-086-C and R7-087-C near outfall and drainage.                                               |
|                                           | 183             | R7-183-C  | Extent       | Between R7-087-C and R7-088-C upstream of obstruction.                                                 |
|                                           | 184             | R7-184-C  | Confirmation | Near R7-088-C as confirmation sample.                                                                  |
|                                           | 185             | R7-185-C  | Extent       | Between R7-088-C and R7-089-C in depositional area (SED-78).                                           |
|                                           | 186             | R7-186-C  | Confirmation | Near R7-089-C as confirmation sample.                                                                  |
|                                           | 187             | R7-187-C  | Extent       | Between R7-089-C and R7-090-C downstream of drainage.                                                  |
|                                           | 188             | R7-188-C  | Extent       | Between R7-090-C and R7-091-C downstream of tributary.                                                 |
|                                           | 189             | R7-189-C  | Extent       | Between R7-090-C and R7-091-C upstream of obstruction.                                                 |
|                                           | 190             | R7-190-C  | Extent       | Between R7-092-C and R7-093-C downstream of drainage and upstream of obstruction.                      |
|                                           | 191             | R7-191-C  | Extent       | Between R7-093-C and R7-094-C downstream of drainage and upstream of obstruction.                      |
|                                           | 192             | R7-192-C  | Extent       | Between R7-096-C and R7-097-C in depositional area downstream of outfall.                              |
|                                           | 193             | R7-193-C  | Extent       | Between R7-097-C and R7-098-C downstream of tributary.                                                 |
|                                           | 194             | R7-194-C  | Extent       | Between R7-100-C and R7-101-C downstream of road, across from R7-134-H.                                |
|                                           | 195             | R7-195-C  | Extent       | Between R7-101-C and R7-102-C near the road on RDB.                                                    |
|                                           | 196             | R7-196-C  | Extent       | Between R7-102-C and EMC-C-11-SD-C.                                                                    |
|                                           | 197             | R7-197-C  | Extent       | Between R7-103-C and EMC-C-08-SD-C.                                                                    |
|                                           | 198             | R7-198-C  | Confirmation | Between R7-103-C and EMC-C-08-SD-C.                                                                    |
|                                           | 199             | R7-199-C  | Confirmation | Between R7-103-C and EMC-C-08-SD-C.                                                                    |
|                                           | 200             | R7-200-C  | Source       | Between EMC-C-04-SD-C and R7-106-C-downstream of confluence of Gulf Creek.                             |
| <b>Total for Reach 7 main channel: 29</b> |                 |           |              |                                                                                                        |
| R7                                        | 201             | R7-201-T  | Source       | East Branch, upstream of confluence near bend where depositional area was expected.                    |
|                                           | 202             | R7-202-T  | Background   | East Branch, upstream in background location (as far upstream as possible where sediment is present).  |
|                                           | 203             | R7-203-T  | Extent       | Gulf Creek.                                                                                            |
|                                           | 204             | R7-204-T  | Extent       | Gulf Creek.                                                                                            |
|                                           | 205             | R7-205-T  | Background   | Upstream of Gulf Creek.                                                                                |
| <b>Total for Reach 7 Tributary: 5</b>     |                 |           |              |                                                                                                        |

Key:

- C = Hand-core creek location/sample.
- PAH = Polynuclear aromatic hydrocarbon.
- RDB = Right descending bank.
- T = Tributary location.

Table 2-3  
Summary of Sample Locations Corrected During Review

| Sample ID | Surveyed     |             | Corrected    |             |
|-----------|--------------|-------------|--------------|-------------|
|           | POINT X      | POINT Y     | POINT X      | POINT Y     |
| R6-058-C  | -78.6976495  | 43.25593587 | -78.69763336 | 43.25599528 |
| R7-089-C  | -78.71819676 | 43.21176577 | -78.71812735 | 43.21178279 |
| R7-090-C  | -78.71767936 | 43.21051001 | -78.71768772 | 43.21046285 |
| R7-093-C  | -78.71434196 | 43.20401624 | -78.71445658 | 43.20478082 |

Table 2-4  
Summary of Sediment Thickness and Bankfull delineation Survey (Fall 2010)

| Reach     | Length<br>(miles) <sup>(1)</sup> | Bank to Bank Width |         |         | Water Depth Measurements (feet) |         |         | Sediment Thickness Measurements<br>(feet) |         |         |
|-----------|----------------------------------|--------------------|---------|---------|---------------------------------|---------|---------|-------------------------------------------|---------|---------|
|           |                                  | Average            | Maximum | Minimum | Average                         | Maximum | Minimum | Average                                   | Maximum | Minimum |
| Reach 1   | 2.19                             | --                 | --      | --      | --                              | --      | --      | --                                        | --      | --      |
| Reach 2   | 1.48                             | --                 | --      | --      | --                              | --      | --      | --                                        | --      | --      |
| Reach 3   | 0.48                             | 157.7              | 346.7   | 60.0    | 2.5                             | 7.8     | 0.5     | 5.2                                       | 12.0    | 0.3     |
| Reach 4   | 1.21                             | 65.4               | 96.0    | 26.8    | 1.1                             | 4.5     | 0.1     | 0.6                                       | 3.3     | 0.0     |
| Reach 5   | 0.63                             | 92.1               | 115.4   | 56.8    | 3.5                             | 11.6    | 0.2     | 4.0                                       | 12.8    | 0.0     |
| Reach 6.1 | 1.89                             | 70.3               | 98.3    | 23.4    | 1.4                             | 4.5     | 0.0     | 0.4                                       | 2.9     | 0.0     |
| Reach 6.2 | 1.46                             | 70.5               | 87.7    | 44.5    | 2.2                             | 5.0     | 0.0     | 1.1                                       | 4.4     | 0.0     |
| Reach 6   | 3.35                             | 70.4               | 98.3    | 23.4    | 1.8                             | 5.0     | 0.0     | 0.7                                       | 4.4     | 0.0     |
| Reach 7.1 | 1.32                             | 59.0               | 78.1    | 20.7    | 2.1                             | 5.0     | 0.5     | 1.4                                       | 4.5     | 0.0     |
| Reach 7.2 | 2.40                             | 61.4               | 90.4    | 36.8    | 2.2                             | 4.5     | 0.1     | 1.2                                       | 4.5     | 0.0     |
| Reach 7.3 | 0.99                             | 43.8               | 56.5    | 11.0    | 2.8                             | 6.0     | 0.4     | 2.2                                       | 8.0     | 0.1     |
| Reach 7   | 4.71                             | 57.5               | 90.4    | 11.0    | 2.3                             | 6.0     | 0.1     | 1.4                                       | 8.0     | 0.0     |
| Reach 8   | 0.42                             | --                 | --      | --      | --                              | --      | --      | --                                        | --      | --      |
| Reach 9   | 0.18                             | --                 | --      | --      | --                              | --      | --      | --                                        | --      | --      |
| Reach 10  | 0.57                             | --                 | --      | --      | --                              | --      | --      | --                                        | --      | --      |

Note:

<sup>(1)</sup> The lengths presented here were calculated based on digitized information from a 2008 aerial photo.

Key:

-- = Not measured (this reach was not part of the investigation).

Table 2-5  
Summary of Water Depth and Sediment Thickness Measurements in Eighteenmile Creek by Reach

| Reach                                  | Average   |                                   |           | Maximum   |                                   |           | Minimum   |                                   |           |
|----------------------------------------|-----------|-----------------------------------|-----------|-----------|-----------------------------------|-----------|-----------|-----------------------------------|-----------|
|                                        | Fall 2009 | Spring/Summer 2010 <sup>(1)</sup> | Fall 2010 | Fall 2009 | Spring/Summer 2010 <sup>(1)</sup> | Fall 2010 | Fall 2009 | Spring/Summer 2010 <sup>(1)</sup> | Fall 2010 |
| Water Depth Measurements (feet)        |           |                                   |           |           |                                   |           |           |                                   |           |
| Reach 2                                | --        | 17.6                              | --        | --        | 34.0                              | --        | --        | 1.7                               | 0.5       |
| Reach 3                                | --        | 2.6                               | 2.5       | --        | 6.1                               | 0.5       | --        | 1.0                               | 0.1       |
| Reach 4                                | 0.8       | 0.8                               | 1.1       | 1.3       | 1.8                               | 0.1       | 0.5       | 0.2                               | 0.2       |
| Reach 5                                | --        | 3.2                               | 3.5       | --        | 11.1                              | 0.2       | --        | 0.5                               | 0.0       |
| Reach 6                                | 1.1       | 0.8                               | 1.8       | 2.4       | 1.8                               | 0.0       | 0.3       | 0.0                               | 0.0       |
| Reach 7                                | 1.4       | 1.3                               | 2.3       | 3.3       | 2.8                               | 0.1       | 0.1       | 0.2                               | 0.1       |
| Sediment Thickness Measurements (feet) |           |                                   |           |           |                                   |           |           |                                   |           |
| Reach 2                                | --        | 12.1                              | --        | --        | 15.0                              | --        | --        | 7.0                               | --        |
| Reach 3                                | --        | 7.0                               | 5.22      | --        | 12.0                              | 12.0      | --        | 1.3                               | 0.3       |
| Reach 4                                | 0.8       | 0.7                               | 0.56      | 1.6       | 1.8                               | 3.25      | 0.4       | 0.2                               | 0.0       |
| Reach 5                                | --        | 6.3                               | 3.97      | --        | 9.0                               | 12.8      | --        | 3.5                               | 0.0       |
| Reach 6                                | 1.8       | 1.4                               | 0.73      | 5.6       | 2.8                               | 4.4       | 0.5       | 0.6                               | 0.0       |
| Reach 7                                | 1.8       | 1.8                               | 1.43      | 4.5       | 4.2                               | 8.0       | 0.5       | 0.3                               | 0.0       |

Note:

The Spring/Summer 2010 values for each statistic are italicized for presentation purposes, since all Reaches were visited during that period.

Key:

-- = Not measured.

Table 3-1  
Summary of Samples Collected

| Method         | Samples Collected |          |           | 2009 Samples |          |           | 2010 Vibracore and Ponar Samples |          |           | 2010 Data Gap Samples |          |           |
|----------------|-------------------|----------|-----------|--------------|----------|-----------|----------------------------------|----------|-----------|-----------------------|----------|-----------|
|                | Total             | Original | Duplicate | Total        | Original | Duplicate | Total                            | Original | Duplicate | Total                 | Original | Duplicate |
| Metals/Mercury | 495               | 470      | 25        | 104          | 99       | 5         | 265                              | 252      | 13        | 126                   | 119      | 7         |
| Aroclors       | 495               | 470      | 25        | 104          | 99       | 5         | 265                              | 252      | 13        | 126                   | 119      | 7         |
| 16 PAHs        | 328               | 311      | 17        | 46           | 43       | 3         | 193                              | 184      | 9         | 89                    | 84       | 5         |
| 34 PAHs        | 109               | 103      | 6         | 0            | 0        | 0         | 72                               | 68       | 4         | 37                    | 35       | 2         |
| TOC            | 464               | 439      | 25        | 104          | 99       | 5         | 234                              | 221      | 13        | 126                   | 119      | 7         |
| Grain Size     | 461               | 438      | 23        | 104          | 99       | 5         | 231                              | 220      | 11        | 126                   | 119      | 7         |
| Pesticides     | 46                | 43       | 3         | 46           | 43       | 3         | 0                                | 0        | 0         | 0                     | 0        | 0         |
| AVS/SEM        | 39                | 36       | 3         | 31           | 28       | 3         | 8                                | 8        | 0         | 0                     | 0        | 0         |
| TCLP Metals    | 23                | 23       | 0         | 4            | 4        | 0         | 19                               | 19       | 0         | 0                     | 0        | 0         |
| PCB Congeners  | 80                | 77       | 3         | 34           | 31       | 3         | 46                               | 46       | 0         | 0                     | 0        | 0         |
| % Moisture     | 388               | 365      | 23        | 31           | 28       | 3         | 231                              | 218      | 13        | 126                   | 119      | 7         |

Key:

AVS = Acid Volatile Sulfides.  
PAH = Polynuclear aromatic hydrocarbon.  
PCB = Polychlorinated biphenyl.  
SEM = Simultaneously extracted metals.  
TCLP = Toxicity characteristic leaching procedure.  
TOC = Total organic carbon.

Table 3-2  
Summary of Quality Control Sample Percentages

| Method         | Number of Samples Collected |          |           |        | QC Sample Percentages |        |
|----------------|-----------------------------|----------|-----------|--------|-----------------------|--------|
|                | Total                       | Original | Duplicate | MS/MSD | Field Duplicate       | MS/MSD |
| Metals/Mercury | 495                         | 470      | 25        | 25     | 5.1%                  | 5.1%   |
| Aroclors       | 495                         | 470      | 25        | 25     | 5.1%                  | 5.1%   |
| 16 PAHs        | 328                         | 311      | 17        | 19     | 5.2%                  | 5.8%   |
| 34 PAHs        | 109                         | 103      | 6         | 5      | 5.5%                  | 4.6%   |
| TOC            | 464                         | 439      | 25        | 26     | 5.4%                  | 5.6%   |
| Grain Size     | 461                         | 438      | 23        | NR     | 5.0%                  | NR     |
| Pesticides     | 46                          | 43       | 3         | 4      | 6.5%                  | 8.7%   |
| AVS/SEM        | 39                          | 36       | 3         | 3      | 7.7%                  | 7.7%   |
| TCLP Metals    | 23                          | 23       | 0         | 0      | 0.0%                  | 0.0%   |
| PCB Congeners  | 80                          | 59       | 3         | 5      | 3.8%                  | 6.3%   |
| % Moisture     | 388                         | 365      | 23        | NR     | 5.9%                  | NR     |

Key:

- AVS = Acid Volatile Sulfides.
- MS/MSD = Matrix spike/matrix spike duplicate.
- NR = Not required.
- PAH = Polynuclear aromatic hydrocarbon.
- PCB = Polychlorinated biphenyl.
- QC = Quality control.
- SEM = Simultaneously extracted metals.
- TCLP = Toxicity characteristic leaching procedure.
- TOC = Total organic carbon.
- % = Percent.



Table 3-3  
Summary of Sample Delivery Groups

| Round          | Lab                                      | SDG      |
|----------------|------------------------------------------|----------|
| 2009 Hand-core | A4 Scientific                            | E0002    |
| 2009 Hand-core | A4 Scientific                            | E0023    |
| 2009 Hand-core | A4 Scientific                            | E0042    |
| 2009 Hand-core | A4 Scientific                            | E0054    |
| 2009 Hand-core | A4 Scientific                            | E0066    |
| 2009 Hand-core | A4 Scientific                            | E0089    |
| 2009 Hand-core | Chemtech Consulting Group                | ME0002   |
| 2009 Hand-core | Chemtech Consulting Group                | ME0023   |
| 2009 Hand-core | Chemtech Consulting Group                | ME0042   |
| 2009 Hand-core | Chemtech Consulting Group                | ME0055   |
| 2009 Hand-core | Chemtech Consulting Group                | ME00A0   |
| 2009 Hand-core | Chemtech Consulting Group                | ME0081   |
| 2009 Hand-core | TestAmerica Burlington                   | 134767   |
| 2009 Hand-core | TestAmerica Burlington                   | 134879   |
| 2009 Hand-core | TestAmerica Burlington                   | 134965   |
| 2009 Hand-core | Region 5 EPA Central Regional Laboratory | 0911007  |
| 2009 Hand-core | Region 5 EPA Central Regional Laboratory | 0911010  |
| 2009 Hand-core | Region 5 EPA Central Regional Laboratory | 0912001  |
| 2009 Hand-core | Region 5 EPA Central Regional Laboratory | 0912005  |
| 2009 Hand-core | SGSW                                     | G638-10  |
| 2009 Hand-core | SGSW                                     | G638-11  |
| 2010 Vibracore | Bonner Analytical Testing                | MB00B0   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00D1   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00F2   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00H4   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00K5   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00M5   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00P7   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00R7   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00S9   |
| 2010 Vibracore | Bonner Analytical Testing                | MB00W0   |
| 2010 Vibracore | Bonner Analytical Testing                | MB0100   |
| 2010 Vibracore | Bonner Analytical Testing                | MB0108   |
| 2010 Vibracore | Bonner Analytical Testing                | MB0117   |
| 2010 Vibracore | Bonner Analytical Testing                | MB0155   |
| 2010 Vibracore | KAP Technologies                         | B00B0    |
| 2010 Vibracore | KAP Technologies                         | B00B8    |
| 2010 Vibracore | KAP Technologies                         | B00D9    |
| 2010 Vibracore | KAP Technologies                         | B00E2    |
| 2010 Vibracore | KAP Technologies                         | B00G4    |
| 2010 Vibracore | KAP Technologies                         | B00K1    |
| 2010 Vibracore | KAP Technologies                         | B00L4    |
| 2010 Vibracore | KAP Technologies                         | B00M8    |
| 2010 Vibracore | KAP Technologies                         | B00N4    |
| 2010 Vibracore | KAP Technologies                         | B00Q4    |
| 2010 Vibracore | KAP Technologies                         | B00S4    |
| 2010 Vibracore | KAP Technologies                         | B00Z6    |
| 2010 Vibracore | KAP Technologies                         | B00Z8    |
| 2010 Vibracore | KAP Technologies                         | B0126    |
| 2010 Vibracore | Cape Fear Analytical                     | 1506     |
| 2010 Vibracore | Cape Fear Analytical                     | 1508     |
| 2010 Vibracore | Region 5 EPA Central Regional Laboratory | 1009034  |
| 2010 Vibracore | TestAmerica Burlington                   | NY137386 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137391 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137403 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137407 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137416 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137436 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137472 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137474 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137476 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137491 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137494 |
| 2010 Vibracore | TestAmerica Burlington                   | NY137498 |

Table 3-3  
Summary of Sample Delivery Groups

| Round          | Lab                       | SDG      |
|----------------|---------------------------|----------|
| 2010 Hand-core | Bonner Analytical Testing | MB0166   |
| 2010 Hand-core | Bonner Analytical Testing | MB0188   |
| 2010 Hand-core | Bonner Analytical Testing | MB01A8   |
| 2010 Hand-core | Bonner Analytical Testing | MB01C8   |
| 2010 Hand-core | Bonner Analytical Testing | MB01E8   |
| 2010 Hand-core | Bonner Analytical Testing | MB01H0   |
| 2010 Hand-core | Bonner Analytical Testing | MB01K0   |
| 2010 Hand-core | KAP Technologies          | B0166    |
| 2010 Hand-core | KAP Technologies          | B0167    |
| 2010 Hand-core | KAP Technologies          | B01A0    |
| 2010 Hand-core | KAP Technologies          | B01C6    |
| 2010 Hand-core | KAP Technologies          | B01D0    |
| 2010 Hand-core | KAP Technologies          | B01F2    |
| 2010 Hand-core | KAP Technologies          | B01J4    |
| 2010 Hand-core | TestAmerica Burlington    | NY137867 |
| 2010 Hand-core | TestAmerica Burlington    | NY137917 |
| 2010 Hand-core | TestAmerica Burlington    | NY137961 |
| 2010 Hand-core | TestAmerica Burlington    | NY137977 |
| 2010 Hand-core | TestAmerica Burlington    | NY137995 |
| 2010 Hand-core | TestAmerica Burlington    | NY137997 |
| 2010 Hand-core | TestAmerica Burlington    | NY138006 |
| 2010 Hand-core | TestAmerica Burlington    | NY138007 |
| 2010 Hand-core | TestAmerica Burlington    | NY138015 |

Key:

EPA = Environmental Protection Agency.

SDG = Sample delivery group.

Table 3-4  
Sample Name Adjustments

| Original Sample Name | Sample Name Adjusted |
|----------------------|----------------------|
| R4-137-C-Z1          | R4-137-C-Comp        |
| R4-138-C-Z1          | R4-138-C-Comp        |
| R4-139-C-Z1          | R4-139-C-Z1a         |
| R7-175-C-Z2          | R7-175-C-Z1          |
| R7-177-C-Z2          | R7-177-C-Z1          |
| R7-178-C-Z2          | R7-178-C-Z1          |

Table 3-5  
Summary of Qualified Sample Results

| Method          | No qualifier | C     | CU    | HM    | J      | J-    | J+    | NJ    | R     | U      | UH    | UJ    | UR    |
|-----------------|--------------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|
| AVS             | 39           |       |       |       |        |       |       |       |       |        |       |       |       |
| C200.7          | 2,126        |       |       | 6,753 | 89     | 142   |       | 20    |       | 730    |       | 966   | 64    |
| CV              | 144          |       |       | 307   |        | 23    |       |       |       | 17     |       | 4     |       |
| D2216           | 388          |       |       |       |        |       |       |       |       |        |       |       |       |
| E200.7          | 43           |       |       |       |        |       |       |       |       | 118    |       |       |       |
| GRAIN SIZE      | 7,637        |       |       |       |        |       |       |       |       |        |       |       |       |
| HRGC/HRMS       | 5,817        | 2,098 | 152   | 2,735 | 1,319  | 3     | 69    |       |       | 2,574  | 787   | 24    |       |
| MC ARO          | 251          |       |       |       | 600    |       | 74    |       |       | 3,837  |       | 188   |       |
| MC PEST         | 52           |       |       |       | 215    |       |       |       |       | 691    |       | 7     | 1     |
| MC SVOA         | 5,887        |       |       | 3,099 |        |       |       |       |       | 1,215  |       | 92    | 1     |
| SW6010          | 108          |       |       | 99    |        |       |       |       |       | 35     |       |       |       |
| TOC             | 463          |       |       |       |        |       |       |       |       | 1      |       |       |       |
| Total Qualified | 44,06%       | 4.03% | 0.29% | 5.25% | 23.78% | 0.18% | 0.45% | 0.14% | 0.04% | 17.69% | 1.51% | 2.46% | 0.13% |

Key:

- J = The J qualifier indicates an estimated value because the associated QC data indicated a potential laboratory or matrix problem or interference. In addition, J flags assigned by the laboratory indicate the results are below the practical quantitation limit (PQL), but above the instrument detection limit (IDL) or method detection limit (MDL).
- NJ = The NJ qualifier indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. This qualifier was only applied Aroclors results.
- U = The result is considered non-detect at the reported value. The laboratory assigned this flag to analytes not present at detectable concentrations (above the IDL or MDL). The data validator assigned this flag when an analyte was considered non-detect due to blank contamination. If the result is above the PQL, the PQL is considered elevated.
- UJ = The reported value for the PQL is estimated.
- R = The result is rejected and not usable for environmental data assessment.
- UR = The result is considered non-detect, but the reported value is rejected and not usable for environmental data assessment.
- The following qualifiers were applied to PCB congeners results only:
- C = The congener co-eluted with another congener.
- CU = The congener co-eluted with another congener and was not detected.
- HM = The sample contained high moisture, >70%.
- UH = The sample contained high moisture, >70%, and the congener was not detected.

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Sample ID R2-001-V-Z1P R2-001-V-Z1a R2-001-V-Z1b R2-001-V-Z2 R2-001-V-Z3 R2-001-V-Z4 R2-001-V-Z5 R2-001-V-Z6 R2-002-V-Z1P |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |
|---------------------------------------------------------------------------------------------------------------------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Sample Date                                                                                                               |  | 5/18/2010 |  |  | 5/18/2010 |  |  | 5/18/2010 |  |  | 5/18/2010 |  |  | 5/18/2010 |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  | 0-1       |  |  | 0-0.5     |  |  | 0.5-1     |  |  | 1-2       |  |  | 2-3       |  |  |
| Sample Depth Range (ft BGS)                                                                                               |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Analyte                                  | Sample ID R2-001-V-Z1P R2-001-V-Z1a R2-001-V-Z1b R2-001-V-Z2 R2-001-V-Z3 R2-001-V-Z4 R2-001-V-Z5 R2-001-V-Z6 R2-002-V-Z1P |          |             |       |             |       |             |          |             |          |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|-------------|-------|-------------|-------|-------------|----------|-------------|----------|
|                                          | Sample Date                                                                                                               |          | Sample Date |       | Sample Date |       | Sample Date |          | Sample Date |          |
|                                          | 5/18/2010                                                                                                                 |          | 5/18/2010   |       | 5/18/2010   |       | 5/18/2010   |          | 5/18/2010   |          |
| Sample Depth Range (ft BGS)              |                                                                                                                           | 0-1      | 0-0.5       | 0.5-1 | 1-2         | 2-3   | 3-4         | 4-5      | 6-7         | 0-1      |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                                                                                                                           |          |             |       |             |       |             |          |             |          |
| 2-METHYLNAPHTHALENE                      | 0.0017 U                                                                                                                  | 0.0017 U | 0.0017 U    | 0.011 | 0.0017 U    | 0.085 | 0.045       | 0.0017 U | 0.0017 U    | 0.0059 U |
| ACENAPHTHENE                             | 0.0017 U                                                                                                                  | 0.0017 U | 0.0017 U    | 0.013 | 0.011       | 0.033 | 0.049       | 0.0017 U | 0.0017 U    | 0.0059 U |
| ACENAPHTHYLENE                           | 0.013                                                                                                                     | 0.017    | 0.025       | 0.023 | 0.014       | 0.04  | 0.079       | 0.0066   | 0.0017 U    | 0.047    |
| ANTHRACENE                               | 0.026                                                                                                                     | 0.025    | 0.025       | 0.035 | 0.024       | 0.029 | 0.081       | 0.0076   | 0.0017 U    | 0.012    |
| BENZO(A)ANTHRACENE                       | 0.15                                                                                                                      | 0.14     | 0.14        | 0.17  | 0.11        | 0.26  | 0.34        | 0.034    | 0.0047      | 0.072    |
| BENZO(A)PYRENE                           | 0.16                                                                                                                      | 0.15     | 0.15        | 0.19  | 0.094       | 0.33  | 0.33        | 0.039    | 0.006       | 0.077    |
| BENZO(B)FLUORANTHENE                     | 0.21                                                                                                                      | 0.19     | 0.19        | 0.22  | 0.1         | 0.26  | 0.37        | 0.034    | 0.0046      | 0.039    |
| BENZO(K)FLUORANTHENE                     | 0.12                                                                                                                      | 0.12     | 0.12        | 0.14  | 0.081       | 0.13  | 0.21        | 0.024    | 0.0051      | 0.063    |
| CHRYSENE                                 | 0.22                                                                                                                      | 0.21     | 0.21        | 0.25  | 0.14        | 0.43  | 0.49        | 0.043    | 0.0055      | 0.13     |
| DIBENZ(A,H)ANTHRACENE                    | 0.058                                                                                                                     | 0.061    | 0.061       | 0.07  | 0.037       | 0.1   | 0.11        | 0.012    | 0.0017 U    | 0.017    |
| FLUORANTHENE                             | 0.32                                                                                                                      | 0.27     | 0.27        | 0.34  | 0.19        | 0.28  | 0.67        | 0.04     | 0.0058      | 0.19     |
| FLUORENE                                 | 0.012                                                                                                                     | 0.014    | 0.014       | 0.017 | 0.015       | 0.07  | 0.086       | 0.0017 U | 0.0017 U    | 0.0059 U |
| INDENO(1,2,3-C,D)PYRENE                  | 0.14                                                                                                                      | 0.12     | 0.12        | 0.14  | 0.087       | 0.15  | 0.19        | 0.026    | 0.0017 U    | 0.041    |
| NAPHTHALENE                              | 0.0017 U                                                                                                                  | 0.0017 U | 0.0017 U    | 0.011 | 0.0017 U    | 0.016 | 0.028       | 0.0017 U | 0.0017 U    | 0.0059 U |
| PHENANTHRENE                             | 0.11                                                                                                                      | 0.093    | 0.093       | 0.14  | 0.081       | 0.29  | 0.46        | 0.018    | 0.0048      | 0.067    |
| PYRENE                                   | 0.27                                                                                                                      | 0.25     | 0.25        | 0.29  | 0.17        | 0.36  | 0.63        | 0.048    | 0.0068      | 0.21     |
| PAHs (total)                             | 2                                                                                                                         | 1.8      | 1.8         | 2.2   | 1.2         | 3.2   | 4.4         | 0.38     | 0.048       | 1 J      |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Sample ID                |           | Sample Date |         |             |         |             |         |             |         |             |     |           |     |             |       |              |     | Sample Depth Range (ft BGS) |     |
|--------------------------|-----------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|-----|-----------|-----|-------------|-------|--------------|-----|-----------------------------|-----|
| Sample Date              | Sample ID | R2-002-V-Z1 |         | R2-002-V-Z2 |         | R2-002-V-Z3 |         | R2-002-V-Z4 |         | R2-002-V-Z5 |     | R2-002-VR |     | R2-002-V-Z6 |       | R2-003-V-Z1P |     | R2-003-V                    |     |
| Sample Date              | Sample ID | 5/18/2010   | 0-1     | 5/18/2010   | 1-2     | 5/18/2010   | 2-3     | 5/18/2010   | 3-4     | 5/18/2010   | 4-6 | 5/18/2010 | 4-6 | 5/18/2010   | 6-7.5 | 5/18/2010    | 0-1 | 5/18/2010                   | 0-1 |
| Analyte                  | Analyte   |             |         |             |         |             |         |             |         |             |     |           |     |             |       |              |     |                             |     |
| Metals by C200.7 (mg/kg) |           |             |         |             |         |             |         |             |         |             |     |           |     |             |       |              |     |                             |     |
| ALUMINUM                 | 23100 J   | 23400 J     | 21900 J | 21900 J     | 24600 J | 15900 J     | 15600 J | 20200 J     | 23200 J | 22800       |     |           |     |             |       |              |     |                             |     |
| ANTIMONY                 | 1.4 UR    | 1.2 UR      | 1.2 UR  | 1.2 UR      | 1.3 UR  | 0.83 UR     | 0.83 UR | 0.82 UR     | 1.3 UR  | 1.3         |     |           |     |             |       |              |     |                             |     |
| ARSENIC                  | 8.1 J     | 9.2 J       | 12.9 J  | 12.9 J      | 29.3 J  | 15.1 J      | 14.7 J  | 15.1 J      | 7.1 J   | 7           |     |           |     |             |       |              |     |                             |     |
| BARIUM                   | 227 J     | 251 J       | 284 J   | 284 J       | 378 J   | 303 J       | 294 J   | 392 J       | 222 J   | 226         |     |           |     |             |       |              |     |                             |     |
| BERYLLIUM                | 0.54 J    | 0.57 J      | 0.73 J  | 0.73 J      | 0.13 UJ | 0.39 J      | 0.4 J   | 0.57 J      | 0.6 J   | 0.51        |     |           |     |             |       |              |     |                             |     |
| CADMIUM                  | 1.6 J     | 2.2 J       | 6.6 J   | 6.6 J       | 8.9 J   | 3.1 J       | 2.9 J   | 1.8 J       | 1.3 J   | 1.7         |     |           |     |             |       |              |     |                             |     |
| CALCIUM                  | 17500 J   | 26400 J     | 22600 J | 22600 J     | 19100 J | 13300 J     | 12900 J | 14900 J     | 18300 J | 21300       |     |           |     |             |       |              |     |                             |     |
| CHROMIUM                 | 88.6 J    | 124 J       | 333 J   | 333 J       | 1200 J  | 290 J       | 277 J   | 81.6 J      | 70.8 J  | 94          |     |           |     |             |       |              |     |                             |     |
| COBALT                   | 14.6 J    | 15.1 J      | 22.5 J  | 22.5 J      | 22.8 J  | 13.7 J      | 13.6 J  | 12.7 J      | 14.3 J  | 14.5        |     |           |     |             |       |              |     |                             |     |
| COPPER                   | 185 J     | 215 J       | 541 J   | 541 J       | 3030 J  | 639 J       | 673 J   | 227 J       | 154 J   | 188         |     |           |     |             |       |              |     |                             |     |
| IRON                     | 31300 J   | 31900 J     | 35200 J | 35200 J     | 41600 J | 25700 J     | 24800 J | 28000 J     | 30200 J | 30300       |     |           |     |             |       |              |     |                             |     |
| LEAD                     | 256 J     | 329 J       | 878 J   | 878 J       | 6760 J  | 873 J       | 789 J   | 325 J       | 210 J   | 270         |     |           |     |             |       |              |     |                             |     |
| MAGNESIUM                | 8310 J    | 8070 J      | 7700 J  | 7700 J      | 6850 J  | 6110 J      | 6040 J  | 6770 J      | 8480 J  | 8190        |     |           |     |             |       |              |     |                             |     |
| MANGANESE                | 801 J     | 862 J       | 621 J   | 621 J       | 514 J   | 406 J       | 405 J   | 427 J       | 709 J   | 638         |     |           |     |             |       |              |     |                             |     |
| NICKEL                   | 51.8 J    | 61.3 J      | 245 J   | 245 J       | 372 J   | 88.3 J      | 92.9 J  | 42.1 J      | 46.7 J  | 54          |     |           |     |             |       |              |     |                             |     |
| POTASSIUM                | 3090 J    | 2990 J      | 2790 J  | 2790 J      | 2660 J  | 1980 J      | 1920 J  | 2270 J      | 3060 J  | 3080        |     |           |     |             |       |              |     |                             |     |
| SELENIUM                 | 1.2 UJ    | 1.1 U       | 1 U     | 1 U         | 1.1 UJ  | 0.72 U      | 0.72 U  | 0.72 U      | 1.1 U   | 1.2         |     |           |     |             |       |              |     |                             |     |
| SILVER                   | 1.4 UJ    | 1.3 U       | 1.5 J   | 1.5 J       | 4.3 J   | 1.8 J       | 2.3 J   | 0.86 U      | 1.3 U   | 1.4         |     |           |     |             |       |              |     |                             |     |
| SODIUM                   | 344 J     | 295 J       | 256 J   | 256 J       | 258 J   | 128 J       | 132 J   | 131 J       | 361 J   | 327         |     |           |     |             |       |              |     |                             |     |
| THALLIUM                 | 1 UJ      | 0.96 U      | 0.92 U  | 0.92 U      | 1 UJ    | 0.64 U      | 0.64 U  | 0.63 U      | 0.98 U  | 1           |     |           |     |             |       |              |     |                             |     |
| VANADIUM                 | 33.7 J    | 35.1 J      | 49.1 J  | 49.1 J      | 82.6 J  | 28.9 J      | 28.3 J  | 32.1 J      | 32 J    | 32.3        |     |           |     |             |       |              |     |                             |     |
| ZINC                     | 736 J     | 926 J       | 2650 J  | 2650 J      | 6830 J  | 1290 J      | 1250 J  | 852 J       | 642 J   | 792         |     |           |     |             |       |              |     |                             |     |
| Mercury by CV (mg/kg)    |           |             |         |             |         |             |         |             |         |             |     |           |     |             |       |              |     |                             |     |
| MERCURY                  | 0.33 J+   | 0.53 J+     | 0.59 J+ | 0.59 J+     | 2.6 J+  | 2.1 J+      | 1.5 J+  | 1.9 J+      | 0.36 J+ | 0.56        |     |           |     |             |       |              |     |                             |     |
| PCBS by MC ARO (mg/kg)   |           |             |         |             |         |             |         |             |         |             |     |           |     |             |       |              |     |                             |     |
| PCB-1016 (AROCOR 1016)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1221 (AROCOR 1221)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1232 (AROCOR 1232)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1242 (AROCOR 1242)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1248 (AROCOR 1248)   | 0.42      | 0.38 J      | 0.71    | 0.71        | 1       | 0.011 U     | 0.1 J   | 0.011 U     | 0.066 J | 0.13        |     |           |     |             |       |              |     |                             |     |
| PCB-1254 (AROCOR 1254)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1260 (AROCOR 1260)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.012 J     | 0.078 J | 0.011 U     | 0.034 J | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1262 (AROCOR 1262)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCB-1268 (AROCOR 1268)   | 0.011 U   | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U | 0.011       |     |           |     |             |       |              |     |                             |     |
| PCBs (total)             | 0.42      | 0.38 J      | 0.71    | 0.71        | 1       | 0.012 J     | 0.18 J  | 0.011 U     | 0.1 J   | 0.13        |     |           |     |             |       |              |     |                             |     |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Analyte                                         | Sample ID |          | Sample Date |          | Sample Depth Range (ft BGS) |         | R2-002-V-Z1 | R2-002-V-Z2 | R2-002-V-Z3 | R2-002-V-Z4 | R2-002-V-Z5 | R2-002-VR | R2-002-V-Z6 | R2-003-V-Z1P | R2-003-V |
|-------------------------------------------------|-----------|----------|-------------|----------|-----------------------------|---------|-------------|-------------|-------------|-------------|-------------|-----------|-------------|--------------|----------|
|                                                 | 5/18/2010 | 0-1      | 5/18/2010   | 1-2      | 5/18/2010                   | 2-3     | 5/18/2010   | 3-4         | 5/18/2010   | 4-6         | 5/18/2010   | 6-7.5     | 5/18/2010   | 0-1          | 0-1      |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |          |             |          |                             |         |             |             |             |             |             |           |             |              |          |
| 2-METHYLNAPHTHALENE                             | 0.0058 U  | 0.0051 U | 0.0051 U    | 0.022    | 0.049                       | 0.16 U  | 0.1 J       | 0.019       | 0.0017 U    | 0.0017      | 0.0017      | 0.0017    | 0.0017      | 0.0017       | 0.0017   |
| ACENAPHTHENE                                    | 0.0058 U  | 0.0051 U | 0.0051 U    | 0.072    | 0.53 J                      | 0.016   | 0.15 J      | 0.016       | 0.0017 U    | 0.0017      | 0.0017      | 0.0017    | 0.0017      | 0.0017       | 0.0017   |
| ACENAPHTHYLENE                                  | 0.036     | 0.027    | 0.033       | 0.041    | 0.019                       | 0.93 J  | 0.25 J      | 0.034       | 0.1         | 0.012       | 0.012       | 0.012     | 0.012       | 0.012        | 0.012    |
| ANTHRACENE                                      | 0.02      | 0.0051 U | 0.016       | 0.019    | 0.12                        | 0.43 J  | 0.43 J      | 0.11        | 0.11        | 0.11        | 0.11        | 0.11      | 0.11        | 0.11         | 0.11     |
| BENZO(A)ANTHRACENE                              | 0.11      | 0.044    | 0.069       | 0.12     | 0.15                        | 0.4 J   | 0.14 J      | 0.13        | 0.12        | 0.12        | 0.12        | 0.12      | 0.12        | 0.12         | 0.12     |
| BENZO(A)PYRENE                                  | 0.16      | 0.051    | 0.066       | 0.15     | 0.048                       | 0.16 U  | 0.031 J     | 0.11 J      | 0.15        | 0.15        | 0.15        | 0.15      | 0.15        | 0.15         | 0.15     |
| BENZO(B)FLUORANTHENE                            | 0.062     | 0.027    | 0.055       | 0.056    | 0.056                       | 0.16 U  | 0.11 J      | 0.085       | 0.12        | 0.12        | 0.12        | 0.12      | 0.12        | 0.12         | 0.12     |
| BENZO(K)FLUORANTHENE                            | 0.17      | 0.039    | 0.051       | 0.13     | 0.21                        | 0.51 J  | 0.45 J      | 0.16        | 0.17        | 0.17        | 0.17        | 0.17      | 0.17        | 0.17         | 0.17     |
| CHRYSENE                                        | 0.18      | 0.066    | 0.13        | 0.051 U  | 0.011                       | 0.054 J | 0.015 J     | 0.014       | 0.064       | 0.064       | 0.064       | 0.064     | 0.064       | 0.064        | 0.064    |
| DIBENZ(A,H)ANTHRACENE                           | 0.026     | 0.0051 U | 0.0051 U    | 0.14     | 0.21                        | 1.6 J   | 0.71 J      | 0.21        | 0.26        | 0.26        | 0.26        | 0.26      | 0.26        | 0.26         | 0.26     |
| FLUORANTHENE                                    | 0.31      | 0.097    | 0.14        | 0.015    | 0.045                       | 0.43 J  | 0.17 J      | 0.022       | 0.0017 U    | 0.0017      | 0.0017      | 0.0017    | 0.0017      | 0.0017       | 0.0017   |
| FLUORENE                                        | 0.017     | 0.0051 U | 0.015       | 0.023    | 0.028                       | 0.16 UJ | 0.052 J     | 0.039       | 0.097       | 0.097       | 0.097       | 0.097     | 0.097       | 0.097        | 0.097    |
| INDENO(1,2,3-C,D)PYRENE                         | 0.076     | 0.026    | 0.023       | 0.0051 U | 0.01 J                      | 0.16 U  | 0.041 J     | 0.011       | 0.0017 U    | 0.0017      | 0.0017      | 0.0017    | 0.0017      | 0.0017       | 0.0017   |
| NAPHTHALENE                                     | 0.0058 U  | 0.0051 U | 0.0051 U    | 0.071    | 0.15                        | 2.3 J   | 0.79 J      | 0.12        | 0.098       | 0.098       | 0.098       | 0.098     | 0.098       | 0.098        | 0.098    |
| PHENANTHRENE                                    | 0.1       | 0.037    | 0.071       | 0.17     | 0.27                        | 1.2 J   | 0.89 J      | 0.26        | 0.21        | 0.21        | 0.21        | 0.21      | 0.21        | 0.21         | 0.21     |
| PYRENE                                          | 0.31      | 0.079    | 0.17        | 0.87 J   | 1.5 J                       | 8.4 J   | 4.3 J       | 1.4 J       | 1.6 J       | 1.6 J       | 1.6 J       | 1.6 J     | 1.6 J       | 1.6 J        | 1.6 J    |
| PAHs (total)                                    | 1.7 J     | 0.52 J   | 0.87 J      | 0.87 J   | 1.5 J                       | 8.4 J   | 4.3 J       | 1.4 J       | 1.6 J       | 1.6 J       | 1.6 J       | 1.6 J     | 1.6 J       | 1.6 J        | 1.6 J    |



## Summary of Results for Reach 2 Sediment Samples

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**Table 4-1**  
**Summary of Results for Reach 2 Sediment Samples**

| Sample ID -Z1                            |             |             |             |             |             |             |              |             |             |  |  |
|------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|--|--|
| Sample Date 10                           |             |             |             |             |             |             |              |             |             |  |  |
| Sample Depth Range (ft BGS)              |             |             |             |             |             |             |              |             |             |  |  |
| Analyte                                  | R2-003-V-Z1 | R2-003-V-Z2 | R2-003-V-Z3 | R2-003-V-Z4 | R2-003-V-Z5 | R2-003-V-Z6 | R2-004-V-Z1P | R2-004-V-Z1 | R2-004-V-Z2 |  |  |
| SVOAs by MC-SVOA (LS) and (SIMS) (mg/kg) |             |             |             |             |             |             |              |             |             |  |  |
| 2-METHYLNAPHTHALENE                      | U           | 0.011       | 0.0017 U    | 0.065       | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0017 U    |  |  |
| ACENAPHTHENE                             | U           | 0.016       | 0.0017 U    | 0.1         | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0017 U    |  |  |
| ACENAPHTHYLENE                           | U           | 0.023       | 0.0017 U    | 0.18        | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0098 J    |  |  |
| ANTHRACENE                               | J           | 0.044       | 0.12 J      | 0.18        | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0017 U    |  |  |
| BENZO(A)ANTHRACENE                       |             | 0.16        | 0.41        | 0.69        | 0.2         | 0.0017 U    | 0.069        | 0.078       | 0.072       |  |  |
| BENZO(A)PYRENE                           |             | 0.17        | 0.4         | 0.58        | 0.21        | 0.0017 U    | 0.059        | 0.08        | 0.073       |  |  |
| BENZO(B)FLUORANTHENE                     |             | 0.2         | 0.37        | 0.73        | 0.2         | 0.0017 U    | 0.071        | 0.088       | 0.081       |  |  |
| BENZO(K)FLUORANTHENE                     |             | 0.12        | 0.2         | 0.45        | 0.14        | 0.0017 U    | 0.041        | 0.061       | 0.054       |  |  |
| CHRYSENE                                 |             | 0.23        | 0.64        | 0.96        | 0.29        | 0.0017 U    | 0.1          | 0.11        | 0.1         |  |  |
| DIBENZ(A,H)ANTHRACENE                    |             | 0.086       | 0.12 J      | 0.18        | 0.067       | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0017 U    |  |  |
| FLUORANTHENE                             |             | 0.31        | 0.63        | 1.6 J       | 0.37        | 0.0017 U    | 0.14         | 0.15        | 0.13        |  |  |
| FLUORENE                                 | U           | 0.022       | 0.13        | 0.22        | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0017 U    |  |  |
| INDENO(1,2,3-C,D)PYRENE                  |             | 0.13        | 0.2         | 0.4         | 0.15        | 0.0017 U    | 0.049        | 0.057       | 0.05        |  |  |
| NAPHTHALENE                              | U           | 0.0017 U    | 0.0017 U    | 0.043       | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U    | 0.0017 U    |  |  |
| PHENANTHRENE                             |             | 0.15        | 0.52        | 1.2         | 0.26        | 0.0017 U    | 0.055        | 0.058       | 0.059       |  |  |
| PYRENE                                   |             | 0.28        | 0.71        | 1.5         | 0.36        | 0.0017 U    | 0.13         | 0.13        | 0.12        |  |  |
| PAHs (total)                             | J           | 2.1         | 4.9 J       | 9.5 J       | 2.5         | 0.0017 U    | 0.78         | 0.89        | 0.82 J      |  |  |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Sample ID                |           | Sample Date |             | Sample Depth Range (ft BGS) |              |             |             |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------|-----------|-------------|-------------|-----------------------------|--------------|-------------|-------------|-------------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Analyte                  | R2-004-VR | R2-004-V-Z3 | R2-004-V-Z4 | R2-004-V-Z5                 | R2-005-V-Z1P | R2-005-V-Z1 | R2-005-V-Z2 | R2-005-V-Z3 | R2-005-V-Z4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Metals by C200.7 (mg/kg) |           |             |             |                             |              |             |             |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALUMINUM                 | 21100 J   | 21600 J     | 21700 J     | 12600                       | 20900 J      | 19500 J     | 19900 J     | 19100 J     | 22300 J     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANTIMONY                 | 1.2 UJ    | 1.3 UR      | 1.1 UJ      | 0.55 UJ                     | 1.2 UJ       | 1.2 UJ      | 1.1 UJ      | 1.2 UJ      | 1.2 UJ      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ARSENIC                  | 9.2 J     | 26.1 J      | 22.1 J      | 6.2 J                       | 7.3 J        | 6.9 J       | 9.3 J       | 25 J        | 32.2 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BARIUM                   | 255 J     | 385 J       | 341 J       | 314                         | 213 J        | 206 J       | 256 J       | 368 J       | 394 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BERYLLIUM                | 0.43 J    | 0.25 J      | 0.2 J       | 0.35 J                      | 0.53 J       | 0.41 J      | 0.54 J      | 0.37 J      | 0.12 UJ     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CADMIUM                  | 4.2 J     | 15.9 J      | 5.6 J       | 0.028 U                     | 0.063 UJ     | 2 J         | 5.3 J       | 17.5 J      | 9.9 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CALCIUM                  | 26200 J   | 17800 J     | 15600 J     | 11300                       | 16300 J      | 18500 J     | 27600 J     | 16700 J     | 18500 J     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CHROMIUM                 | 178 J     | 1680 J      | 602 J       | 50.2                        | 81 J         | 95.3 J      | 204 J       | 1780 J      | 969 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COBALT                   | 17.5 J    | 23.6 J      | 20.1 J      | 12 J                        | 0.13 UJ      | 0.13 UJ     | 17.9 J      | 22 J        | 24.4 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COPPER                   | 338 J     | 2120 J      | 2180 J      | 72.4                        | 183 J        | 208 J       | 383 J       | 1890 J      | 3240 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IRON                     | 31100 J   | 41000 J     | 35000 J     | 19600                       | 29900 J      | 28100 J     | 30100 J     | 38000 J     | 37200 J     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LEAD                     | 519 J     | 4810 J      | 4250 J      | 192                         | 234 J        | 278 J       | 576 J       | 3970 J      | 6760 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MAGNESIUM                | 7670 J    | 6760 J      | 6520 J      | 6830                        | 7930 J       | 7800 J      | 7600 J      | 6530 J      | 7160 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MANGANESE                | 722 J     | 515 J       | 549 J       | 431                         | 859 J        | 728 J       | 660 J       | 444 J       | 541 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NICKEL                   | 113 J     | 441 J       | 218 J       | 26.6                        | 49.1 J       | 53.6 J      | 121 J       | 428 J       | 320 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| POTASSIUM                | 2620 J    | 2330 J      | 2280 J      | 1690                        | 2650 J       | 2500 J      | 2370 J      | 2050 J      | 2290 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SELENIUM                 | 1.1 UJ    | 1.2 UJ      | 0.96 UJ     | 0.48 U                      | 1.1 UJ       | 1 UJ        | 0.98 UJ     | 1.2 J       | 1 UJ        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SILVER                   | 1.3 UJ    | 3.7 J       | 3.7 J       | 0.57 U                      | 1.3 UJ       | 1.2 UJ      | 1.4 J       | 3.8 J       | 5.7 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SODIUM                   | 774 J     | 821 J       | 656 J       | 4.1 U                       | 834 J        | 758 J       | 709 J       | 732 J       | 727 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| THALLIUM                 | 0.93 UJ   | 1 UJ        | 0.85 UJ     | 0.42 U                      | 0.94 UJ      | 0.89 UJ     | 0.86 UJ     | 0.92 UJ     | 0.91 UJ     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VANADIUM                 | 37.3 J    | 88.6 J      | 56.3 J      | 20.5                        | 31.7 J       | 28.6 J      | 33.4 J      | 95.4 J      | 71.7 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ZINC                     | 1580 J    | 10900 J     | 3200 J      | 229                         | 710 J        | 839 J       | 1770 J      | 9430 J      | 6050 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mercury by CV (mg/kg)    |           |             |             |                             |              |             |             |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MERCURY                  | 0.63 J    | 2 J         | 2.2 J       | 3.1                         | 0.53 J       | 0.75 J      | 0.64 J      | 1.7 J       | 2.8 J       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCBS by MC ARO (mg/kg)   |           |             |             |                             |              |             |             |             |             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1016 (AROCLOR 1016)  | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1221 (AROCLOR 1221)  | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1232 (AROCLOR 1232)  | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1242 (AROCLOR 1242)  | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1248 (AROCLOR 1248)  | 0.011 U   | 2.7         | 0.7         | 0.011 U                     | 0.26 J       | 0.35 J      | 0.47        | 7           | 2.8         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1254 (AROCLOR 1254)  | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1260 (AROCLOR 1260)  | 0.011 U   | 0.15 J      | 0.097 J     | 0.009 J                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.25 J      | 0.21 J      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1262 (AROCHLOR 1262) | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1268 (AROCLOR 1268)  | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U                     | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCBs (total)             | 0.011 U   | 2.9 J       | 0.8 J       | 0.009 J                     | 0.26 J       | 0.35 J      | 0.47        | 7.3 J       | 3 J         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID               |           | Sample Date |     | Sample Depth Range (ft BGS) |           | SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |             |           |       |             |           |         |              |           |        |             |           |        |             |           |       |             |           |       |             |           |     |
|-------------------------|-----------|-------------|-----|-----------------------------|-----------|------------------------------------------|-------------|-----------|-------|-------------|-----------|---------|--------------|-----------|--------|-------------|-----------|--------|-------------|-----------|-------|-------------|-----------|-------|-------------|-----------|-----|
| Analyte                 | R2-004-VR | 5/18/2010   | 1-2 | R2-004-V-Z3                 | 5/18/2010 | 2-3                                      | R2-004-V-Z4 | 5/18/2010 | 3-3.5 | R2-004-V-Z5 | 5/18/2010 | 40638-5 | R2-005-V-Z1P | 5/19/2010 | 0-1    | R2-005-V-Z1 | 5/19/2010 | 0-1    | R2-005-V-Z2 | 5/19/2010 | 1-2   | R2-005-V-Z3 | 5/19/2010 | 2-3   | R2-005-V-Z4 | 5/19/2010 | 3-4 |
| 2-METHYLNAPHTHALENE     | 0.0017    | U           |     | 0.0017                      | U         | 0.0017                                   | U           | 0.0017    | U     | 0.0017      | U         | 0.0017  | U            | 0.0017    | U      | 0.0017      | U         | 0.0017 | U           | 0.012     | 0.27  | 0.017       | U         | 0.068 | 0.07        |           |     |
| ACENAPHTHENE            | 0.0017    | U           |     | 0.0017                      | U         | 0.0017                                   | U           | 0.0017    | U     | 0.0017      | U         | 0.0017  | U            | 0.0017    | U      | 0.0017      | U         | 0.0017 | U           | 0.017     | 0.068 | 0.017       | U         | 0.067 | 0.11        |           |     |
| ACENAPHTHYLENE          | 0.0099    | J           |     | 0.0017                      | U         | 0.0017                                   | U           | 0.045     | J     | 0.0017      | U         | 0.0017  | U            | 0.016     | 0.0017 | U           | 0.037     | 0.049  | 0.03        | 0.067     | 0.037 | 0.049       | 0.03      | 0.067 | 0.11        |           |     |
| ANTHRACENE              | 0.014     |             |     | 0.0017                      | U         | 0.0017                                   | U           | 0.055     |       | 0.0052      |           |         | 0.03         | 0.024     | 0.024  | 0.024       | 0.037     | 0.049  | 0.037       | 0.049     | 0.037 | 0.049       | 0.037     | 0.049 | 0.1         |           |     |
| BENZO(A)ANTHRACENE      | 0.071     |             |     | 0.52                        |           | 0.52                                     |             | 0.16      |       | 0.026       |           |         | 0.13         | 0.1       | 0.1    | 0.18        | 0.9       | 0.9    | 0.18        | 0.9       | 0.18  | 0.9         | 0.9       | 0.57  | 0.57        |           |     |
| BENZO(A)PYRENE          | 0.086     |             |     | 0.48                        |           | 0.48                                     |             | 0.14      |       | 0.034       |           |         | 0.15         | 0.067     | 0.067  | 0.19        | 0.9       | 0.9    | 0.19        | 0.9       | 0.19  | 0.9         | 0.58      | 0.58  | 0.58        |           |     |
| BENZO(B)FLUORANTHENE    | 0.091     |             |     | 0.32                        |           | 0.32                                     |             | 0.1       |       | 0.025       |           |         | 0.19         | 0.064     | 0.064  | 0.23        | 0.58      | 0.58   | 0.23        | 0.58      | 0.23  | 0.58        | 0.58      | 0.58  | 0.58        |           |     |
| BENZO(K)FLUORANTHENE    | 0.073     |             |     | 0.14                        |           | 0.14                                     |             | 0.078     |       | 0.025       |           |         | 0.082        | 0.044     | 0.044  | 0.13        | 0.25      | 0.25   | 0.13        | 0.25      | 0.13  | 0.25        | 0.25      | 0.32  | 0.32        |           |     |
| CHRYSENE                | 0.097     |             |     | 0.86                        |           | 0.86                                     |             | 0.25      |       | 0.03        |           |         | 0.19         | 0.13      | 0.13   | 0.25        | 1.7       | 1.7    | 0.25        | 1.7       | 0.25  | 1.7         | 0.88      | 0.88  | 0.88        |           |     |
| DIBENZ(A,H)ANTHRACENE   | 0.035     |             |     | 0.12                        | J         | 0.12                                     | J           | 0.042     | J     | 0.0081      |           |         | 0.043        | 0.023     | 0.023  | 0.077       | 0.24      | 0.24   | 0.077       | 0.24      | 0.077 | 0.24        | 0.24      | 0.17  | 0.17        |           |     |
| FLUORANTHENE            | 0.0017    | U           |     | 0.4                         |           | 0.4                                      |             | 0.28      |       | 0.032       |           |         | 0.26         | 0.15      | 0.15   | 0.33        | 0.66      | 0.66   | 0.33        | 0.66      | 0.33  | 0.66        | 0.66      | 0.93  | 0.93        |           |     |
| FLUORENE                | 0.0096    | J           |     | 0.12                        | J         | 0.12                                     | J           | 0.055     |       | 0.0017      | U         |         | 0.012        | 0.0017    | U      | 0.03        | 0.18      | 0.18   | 0.03        | 0.18      | 0.03  | 0.18        | 0.18      | 0.18  | 0.18        |           |     |
| INDENO(1,2,3-C,D)PYRENE | 0.075     |             |     | 0.16                        |           | 0.16                                     |             | 0.082     |       | 0.018       |           |         | 0.1          | 0.044     | 0.044  | 0.14        | 0.31      | 0.31   | 0.14        | 0.31      | 0.14  | 0.31        | 0.31      | 0.32  | 0.32        |           |     |
| NAPHTHALENE             | 0.0017    | U           |     | 0.0017                      | U         | 0.0017                                   | U           | 0.0017    | U     | 0.0017      | U         | 0.0017  | U            | 0.0017    | U      | 0.0094      | J         | 0.03   | 0.0094      | J         | 0.03  | 0.0094      | J         | 0.045 | 0.045       |           |     |
| PHENANTHRENE            | 0.056     |             |     | 0.44                        |           | 0.44                                     |             | 0.22      |       | 0.018       |           |         | 0.1          | 0.07      | 0.07   | 0.16        | 0.68      | 0.68   | 0.1         | 0.68      | 0.16  | 0.68        | 0.68      | 0.75  | 0.75        |           |     |
| PYRENE                  | 0.11      |             |     | 0.65                        |           | 0.65                                     |             | 0.29      |       | 0.037       |           |         | 0.24         | 0.17      | 0.17   | 0.31        | 1         | 1      | 0.31        | 1         | 0.31  | 1           | 0.94      | 0.94  | 0.94        |           |     |
| PAHs (total)            | 0.8       | J           |     | 4.6                         | J         | 4.6                                      | J           | 1.9       | J     | 0.28        |           |         | 1.7          | 0.94      | 0.94   | 2.3         | J         | 8.4    | 2.3         | J         | 8.4   | 2.3         | J         | 7.1   | 7.1         |           |     |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID                |          | Sample Date |          | Sample Depth Range (ft BGS) |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------|----------|-------------|----------|-----------------------------|---------|---------|---------|---------|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Analyte                  |          |             |          |                             |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Metals by C200.7 (mg/kg) |          |             |          |                             |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALUMINUM                 | 17400 J  | 22000 J     | 19500 J  | 15600 J                     | 19000 J | 17600 J | 17200 J | 16800 J | 20300 J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANTIMONY                 | 0.98 UJ  | 0.98 UJ     | 1.1 UJ   | 0.91 UJ                     | 1.1 UJ  | 1.1 UJ  | 0.98 UJ | 0.98 UJ | 1 UJ    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ARSENIC                  | 16.6 J   | 22.7 J      | 6.6 J    | 5.3 J                       | 9.1 J   | 23.1 J  | 21.2 J  | 16.5 J  | 22.5 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BARIUM                   | 370 J    | 376 J       | 190 J    | 162 J                       | 254 J   | 344 J   | 320 J   | 364 J   | 401 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BERYLLIUM                | 0.44 J   | 0.67 J      | 0.46 J   | 0.37 J                      | 0.58 J  | 0.62 J  | 0.23 J  | 0.35 J  | 0.7 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CADMIUM                  | 8.1 J    | 5.3 J       | 0.059 UJ | 1.3 J                       | 5.4 J   | 14.9 J  | 12.9 J  | 8.2 J   | 7.3 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CALCIUM                  | 13200 J  | 12800 J     | 18400 J  | 23600 J                     | 29300 J | 23900 J | 22800 J | 12300 J | 17000 J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CHROMIUM                 | 505 J    | 565 J       | 70.1 J   | 70.3 J                      | 200 J   | 1570 J  | 1320 J  | 532 J   | 602 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COBALT                   | 17.6 J   | 18.5 J      | 0.13 UJ  | 12 J                        | 17.4 J  | 19.3 J  | 19.4 J  | 16.8 J  | 19.6 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| COPPER                   | 1600 J   | 888 J       | 151 J    | 145 J                       | 379 J   | 1770 J  | 1720 J  | 1740 J  | 1480 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IRON                     | 27700 J  | 31900 J     | 27200 J  | 22800 J                     | 28800 J | 33300 J | 30300 J | 26700 J | 34600 J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| LEAD                     | 2140 J   | 548 J       | 188 J    | 203 J                       | 603 J   | 3750 J  | 3790 J  | 2110 J  | 1820 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MAGNESIUM                | 7010 J   | 6960 J      | 7680 J   | 7150 J                      | 7570 J  | 6730 J  | 6460 J  | 6850 J  | 7060 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MANGANESE                | 424 J    | 553 J       | 687 J    | 593 J                       | 650 J   | 505 J   | 461 J   | 353 J   | 532 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NICKEL                   | 186 J    | 107 J       | 42.3 J   | 43.3 J                      | 130 J   | 363 J   | 333 J   | 178 J   | 202 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| POTASSIUM                | 2040 J   | 2320 J      | 2480 J   | 2000 J                      | 2260 J  | 1880 J  | 1920 J  | 1870 J  | 2190 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SELENIUM                 | 0.85 UJ  | 0.85 UJ     | 1 UJ     | 0.79 UJ                     | 0.92 UJ | 1.1 J   | 0.85 UJ | 0.86 UJ | 0.91 UJ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SILVER                   | 5.3 J    | 3.3 J       | 1.2 UJ   | 0.96 UJ                     | 1.4 J   | 3.4 J   | 3 J     | 5.4 J   | 5.5 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SODIUM                   | 591 J    | 592 J       | 762 J    | 572 J                       | 646 J   | 634 J   | 622 J   | 567 J   | 685 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| THALLIUM                 | 0.75 UJ  | 0.75 UJ     | 0.88 UJ  | 0.7 UJ                      | 0.81 UJ | 0.82 UJ | 0.75 UJ | 0.76 UJ | 0.81 UJ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VANADIUM                 | 32.3 J   | 36.2 J      | 25.1 J   | 23.5 J                      | 34.8 J  | 79.4 J  | 69.6 J  | 35.2 J  | 42.7 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ZINC                     | 2660 J   | 2680 J      | 579 J    | 599 J                       | 1820 J  | 9070 J  | 8650 J  | 2690 J  | 2460 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mercury by CV (mg/kg)    |          |             |          |                             |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MERCURY                  | 3.3 J    | 1.6 J       | 0.43 J   | 0.32 J                      | 0.62 J  | 1.6 J   | 1.9 J   | 3.1 J   | 2.7 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCBS by MC ARO (mg/kg)   |          |             |          |                             |         |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1016 (AROCOR 1016)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1221 (AROCOR 1221)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1232 (AROCOR 1232)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1242 (AROCOR 1242)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1248 (AROCOR 1248)   | 0.095 J  | 0.011 U     | 0.13 J   | 0.15 J                      | 0.23 J  | 6.1 J   | 2.9 J   | 0.39 J  | 0.22 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1254 (AROCOR 1254)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1260 (AROCOR 1260)   | 0.011 UJ | 0.062 J     | 0.011 U  | 0.011 U                     | 0.011 U | 0.19 J  | 0.16 J  | 0.14 J  | 0.1 J   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1262 (AROCOR 1262)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1268 (AROCOR 1268)   | 0.011 UJ | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PCBs (total)             | 0.095 J  | 0.062 J     | 0.13 J   | 0.15 J                      | 0.23 J  | 6.3 J   | 3.1 J   | 0.53 J  | 0.32 J  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID                                |     | Sample Date |       | Sample Depth Range (ft BGS) |          | Analyte     |          |             |        |             |     |           |     |             |     |              |     |  |  |  |  |
|------------------------------------------|-----|-------------|-------|-----------------------------|----------|-------------|----------|-------------|--------|-------------|-----|-----------|-----|-------------|-----|--------------|-----|--|--|--|--|
| R2-005-V-Z5                              |     | R2-005-V-Z6 |       | R2-006-V-Z1P                |          | R2-006-V-Z1 |          | R2-006-V-Z2 |        | R2-006-V-Z3 |     | R2-006-VR |     | R2-006-V-Z4 |     | R2-006-V-Z5a |     |  |  |  |  |
| 5/19/2010                                | 4-6 | 5/19/2010   | 6-7   | 5/19/2010                   | 0-1      | 5/19/2010   | 0-1      | 5/19/2010   | 1-2    | 5/19/2010   | 2-3 | 5/19/2010 | 2-3 | 5/19/2010   | 3-4 | 5/19/2010    | 4-5 |  |  |  |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |     |             |       |                             |          |             |          |             |        |             |     |           |     |             |     |              |     |  |  |  |  |
| 2-METHYLNAPHTHALENE                      |     | 0.094       | 0.17  | 0.013                       | 0.0089   | 0.011       | 0.035 J  | 0.1 J       | 0.014  | 0.034       |     |           |     |             |     |              |     |  |  |  |  |
| ACENAPHTHENE                             |     | 0.11        | 0.069 | 0.0094 J                    | 0.0017 U | 0.0017 U    | 0.019 J  | 0.049 J     | 0.022  | 0.033       |     |           |     |             |     |              |     |  |  |  |  |
| ACENAPHTHYLENE                           |     | 0.22        | 0.13  | 0.02                        | 0.015    | 0.0096 J    | 0.021 J  | 0.07 J      | 0.047  | 0.074       |     |           |     |             |     |              |     |  |  |  |  |
| ANTHRACENE                               |     | 0.24        | 0.18  | 0.035                       | 0.02     | 0.013       | 0.015 J  | 0.053 J     | 0.066  | 0.07        |     |           |     |             |     |              |     |  |  |  |  |
| BENZO(A)ANTHRACENE                       |     | 1.1         | 0.59  | 0.17                        | 0.1      | 0.064       | 0.25 J   | 0.72 J      | 0.18 J | 0.27        |     |           |     |             |     |              |     |  |  |  |  |
| BENZO(A)PYRENE                           |     | 0.76        | 0.51  | 0.19                        | 0.11     | 0.046       | 0.23 J   | 0.74 J      | 0.13 J | 0.24        |     |           |     |             |     |              |     |  |  |  |  |
| BENZO(B)FLUORANTHENE                     |     | 0.86        | 0.59  | 0.25                        | 0.14     | 0.053       | 0.15 J   | 0.56 J      | 0.15 J | 0.29        |     |           |     |             |     |              |     |  |  |  |  |
| BENZO(K)FLUORANTHENE                     |     | 0.61        | 0.41  | 0.16                        | 0.064    | 0.027       | 0.074 J  | 0.26 J      | 0.069  | 0.18        |     |           |     |             |     |              |     |  |  |  |  |
| CHRYSENE                                 |     | 1.5         | 0.77  | 0.26                        | 0.15     | 0.088       | 0.41 J   | 1.4 J       | 0.22 J | 0.36        |     |           |     |             |     |              |     |  |  |  |  |
| DIBENZ(A,H)ANTHRACENE                    |     | 0.22        | 0.17  | 0.052                       | 0.033    | 0.016       | 0.064 J  | 0.19 J      | 0.034  | 0.081       |     |           |     |             |     |              |     |  |  |  |  |
| FLUORANTHENE                             |     | 2.8         | 1.8   | 0.36                        | 0.2      | 0.11        | 0.18 J   | 0.68 J      | 0.34 J | 0.61        |     |           |     |             |     |              |     |  |  |  |  |
| FLUORENE                                 |     | 0.26        | 0.2   | 0.016                       | 0.011    | 0.016       | 0.047 J  | 0.15 J      | 0.049  | 0.077       |     |           |     |             |     |              |     |  |  |  |  |
| INDENO(1,2,3-C,D)PYRENE                  |     | 0.47        | 0.36  | 0.17                        | 0.094    | 0.035       | 0.088 J  | 0.3 J       | 0.074  | 0.16        |     |           |     |             |     |              |     |  |  |  |  |
| NAPHTHALENE                              |     | 0.086       | 0.056 | 0.017                       | 0.01     | 0.0017 U    | 0.0093 J | 0.034 J     | 0.013  | 0.02        |     |           |     |             |     |              |     |  |  |  |  |
| PHENANTHRENE                             |     | 1.9         | 0.88  | 0.13                        | 0.071    | 0.071       | 0.19 J   | 0.59 J      | 0.23   | 0.39        |     |           |     |             |     |              |     |  |  |  |  |
| PYRENE                                   |     | 2.4         | 1.6   | 0.33                        | 0.18     | 0.1         | 0.3 J    | 0.95 J      | 0.3 J  | 0.51        |     |           |     |             |     |              |     |  |  |  |  |
| PAHs (total)                             |     | 14          | 8.7   | 2.4 J                       | 1.3      | 0.7 J       | 2.3 J    | 7.5 J       | 2 J    | 3.6         |     |           |     |             |     |              |     |  |  |  |  |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Analyte                     | Sample ID    |           |              |           |             |           |             |           |             |           |
|-----------------------------|--------------|-----------|--------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|
|                             | R2-006-V-Z5b |           | R2-007-V-Z1P |           | R2-007-V-Z2 |           | R2-007-V-Z3 |           | R2-007-V-Z4 |           |
|                             | Sample Date  | 5/19/2010 | Sample Date  | 5/19/2010 | Sample Date | 5/19/2010 | Sample Date | 5/19/2010 | Sample Date | 5/19/2010 |
| Sample Depth Range (ft BGS) |              | 5-6       | 0-1          |           | 1-2         |           | 2-3         |           | 3-4         |           |
|                             |              |           |              |           |             |           |             |           |             |           |
| Metals by C200.7 (mg/kg)    |              |           |              |           |             |           |             |           |             |           |
| ALUMINUM                    |              | 17300     | 19800 J      | 19100 J   | 18600 J     | 20200 J   | 20200 J     | 19700 J   | 14000       | 10300     |
| ANTIMONY                    |              | 0.66 UJ   | 1.1 UJ       | 1.2 UJ    | 1.1 UJ      | 1.3 UJ    | 1.3 UJ      | 1.1 UJ    | 0.6 UJ      | 0.48 UJ   |
| ARSENIC                     |              | 8.7       | 6.7 J        | 6.5 J     | 11.1 J      | 25.8 J    | 25.8 J      | 19 J      | 7.8         | 1.9       |
| BARIUM                      |              | 301 J     | 225 J        | 199 J     | 282 J       | 389 J     | 389 J       | 374 J     | 235 J       | 127 J     |
| BERYLLIUM                   |              | 0.58 J    | 0.68 J       | 0.53 J    | 0.53 J      | 0.44 J    | 0.44 J      | 0.66 J    | 0.5 J       | 0.52 J    |
| CADMIUM                     |              | 1.2 J     | 2.6 J        | 1.7 J     | 9.7 J       | 15.8 J    | 15.8 J      | 7.9 J     | 1.2 J       | 0.059 J   |
| CALCIUM                     |              | 10900     | 19700 J      | 14600 J   | 21300 J     | 17400 J   | 17400 J     | 15100 J   | 5800        | 2050      |
| CHROMIUM                    |              | 55.8      | 131 J        | 83.7 J    | 381 J       | 1600 J    | 1600 J      | 622 J     | 98.7        | 15.3      |
| COBALT                      |              | 13.5      | 0.13 UJ      | 0.13 UJ   | 23 J        | 22.9 J    | 22.9 J      | 19.3 J    | 13.2        | 11.6      |
| COPPER                      |              | 173       | 261 J        | 189 J     | 687 J       | 2430 J    | 2430 J      | 1820 J    | 192         | 9.7       |
| IRON                        |              | 25200     | 28900 J      | 28200 J   | 30200 J     | 35500 J   | 35500 J     | 32000 J   | 21000       | 16800     |
| LEAD                        |              | 272 J     | 347 J        | 244 J     | 958 J       | 5240 J    | 5240 J      | 2370 J    | 173 J       | 8.2 J     |
| MAGNESIUM                   |              | 7250      | 8320 J       | 8070 J    | 7440 J      | 6650 J    | 6650 J      | 7110 J    | 5890        | 4680      |
| MANGANESE                   |              | 447 J     | 600 J        | 644 J     | 568 J       | 483 J     | 483 J       | 619 J     | 557 J       | 868 J     |
| NICKEL                      |              | 45.8      | 61.7 J       | 48.7 J    | 288 J       | 393 J     | 393 J       | 211 J     | 40.9        | 22.7      |
| POTASSIUM                   |              | 1870      | 2400 J       | 2360 J    | 2070 J      | 1990 J    | 1990 J      | 2140 J    | 1800 J      | 967       |
| SELENIUM                    |              | 0.57 U    | 0.99 UJ      | 1.1 UJ    | 0.96 UJ     | 1.2 J     | 1.2 J       | 0.93 UJ   | 0.53 U      | 0.42 U    |
| SILVER                      |              | 0.69 U    | 1.2 UJ       | 1.3 UJ    | 2.4 J       | 4.5 J     | 4.5 J       | 5.7 J     | 0.64 U      | 0.5 U     |
| SODIUM                      |              | 543 J     | 724 J        | 811 J     | 656 J       | 759 J     | 759 J       | 619 J     | 4.5 U       | 3.6 U     |
| THALLIUM                    |              | 0.5 U     | 0.87 UJ      | 0.94 UJ   | 0.85 UJ     | 0.97 UJ   | 0.97 UJ     | 0.82 UJ   | 0.47 U      | 0.37 U    |
| VANADIUM                    |              | 26.8      | 30.4 J       | 29.6 J    | 46.4 J      | 87.2 J    | 87.2 J      | 41.4 J    | 24.5 J      | 15.8      |
| ZINC                        |              | 755       | 1050 J       | 727 J     | 3230 J      | 10500 J   | 10500 J     | 2620 J    | 633         | 60.2      |
| Mercury by CV (mg/kg)       |              |           |              |           |             |           |             |           |             |           |
| MERCURY                     |              | 1.7       | 0.6 J        | 0.59 J    | 0.72 J      | 2.1 J     | 2.1 J       | 2.6 J     | 0.58        | 0.05 J    |
| PCBS by MC ARO (mg/kg)      |              |           |              |           |             |           |             |           |             |           |
| PCB-1016 (AROCOR 1016)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCB-1221 (AROCOR 1221)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCB-1232 (AROCOR 1232)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCB-1242 (AROCOR 1242)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCB-1248 (AROCOR 1248)      |              | 0.06 J    | 0.64 J       | 0.38 J    | 2.1         | 22        | 22          | 0.48 J    | 0.011 U     | 0.35 J    |
| PCB-1254 (AROCOR 1254)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCB-1260 (AROCOR 1260)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.15 J      | 0.84 J    | 0.84 J      | 0.21 J    | 0.023 J     | 0.011 U   |
| PCB-1262 (AROCOR 1262)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCB-1268 (AROCOR 1268)      |              | 0.011 U   | 0.011 U      | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   | 0.011 U     | 0.011 U   |
| PCBs (total)                |              | 0.06 J    | 0.64 J       | 0.38 J    | 2.3 J       | 23 J      | 23 J        | 0.69 J    | 0.023 J     | 0.011 U   |

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Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Analyte                  | Sample ID    |                             |             |                             |             |                             |             |                             |             |                             |
|--------------------------|--------------|-----------------------------|-------------|-----------------------------|-------------|-----------------------------|-------------|-----------------------------|-------------|-----------------------------|
|                          | R2-008-V-Z1P |                             | R2-008-V-Z2 |                             | R2-008-V-Z3 |                             | R2-008-V-Z4 |                             | R2-008-V-Z5 |                             |
|                          | Sample Date  | Sample Depth Range (ft BGS) | Sample Date | Sample Depth Range (ft BGS) | Sample Date | Sample Depth Range (ft BGS) | Sample Date | Sample Depth Range (ft BGS) | Sample Date | Sample Depth Range (ft BGS) |
| Metals by C200.7 (mg/kg) |              |                             |             |                             |             |                             |             |                             |             |                             |
| ALUMINUM                 | 17700 J      | 1.2 UJ                      | 17800 J     | 1.1 UJ                      | 19800 J     | 1.2 UJ                      | 17900 J     | 1 UJ                        | 9770        | 0.5 UJ                      |
| ANTIMONY                 |              |                             |             |                             |             |                             |             |                             | 18100 J     | 1.2 UJ                      |
| ARSENIC                  |              | 6.6 J                       |             | 12.1 J                      |             | 22.8 J                      |             | 17.8 J                      |             | 6.8 J                       |
| BARIUM                   |              | 198 J                       |             | 291 J                       |             | 372 J                       |             | 370 J                       |             | 217 J                       |
| BERYLLIUM                |              | 0.51 J                      |             | 0.64 J                      |             | 0.31 J                      |             | 0.51 J                      |             | 0.63 J                      |
| CADMIUM                  |              | 1.8 J                       |             | 11.2 J                      |             | 12.9 J                      |             | 8.3 J                       |             | 0.079 J                     |
| CALCIUM                  | 14500 J      | 19200 J                     |             |                             | 16800 J     |                             | 14600 J     |                             | 7270        | 17300 J                     |
| CHROMIUM                 | 89.4 J       | 605 J                       |             |                             | 1100 J      |                             | 520 J       |                             | 14.9        | 128 J                       |
| COBALT                   | 0.14 UJ      | 23.6 J                      |             |                             | 23.7 J      |                             | 19.4 J      |                             | 11          | 0.13 UJ                     |
| COPPER                   | 204 J        | 833 J                       |             |                             | 2620 J      |                             | 1730 J      |                             | 12.6        | 274 J                       |
| IRON                     | 26900 J      | 29500 J                     |             |                             | 33200 J     |                             | 29700 J     |                             | 16000       | 27000 J                     |
| LEAD                     | 258 J        | 1220 J                      |             |                             | 5060 J      |                             | 2430 J      |                             | 13.1 J      | 355 J                       |
| MAGNESIUM                | 7780 J       | 7430 J                      |             |                             | 6840 J      |                             | 6760 J      |                             | 5150        | 8060 J                      |
| MANGANESE                | 608 J        | 512 J                       |             |                             | 443 J       |                             | 395 J       |                             | 733 J       | 535 J                       |
| NICKEL                   | 49.6 J       | 323 J                       |             |                             | 335 J       |                             | 217 J       |                             | 22.9        | 61.7 J                      |
| POTASSIUM                | 2260 J       | 1920 J                      |             |                             | 1980 J      |                             | 1920 J      |                             | 1190        | 2260 J                      |
| SELENIUM                 | 1.1 UJ       | 0.94 UJ                     |             |                             | 1 UJ        |                             | 0.91 UJ     |                             | 0.43 U      | 1.1 UJ                      |
| SILVER                   | 1.3 UJ       | 2.9 J                       |             |                             | 5 J         |                             | 5.1 J       |                             | 0.52 U      | 1.3 UJ                      |
| SODIUM                   | 812 J        | 638 J                       |             |                             | 689 J       |                             | 594 J       |                             | 3.7 U       | 768 J                       |
| THALLIUM                 | 0.96 UJ      | 0.83 UJ                     |             |                             | 0.91 UJ     |                             | 0.8 UJ      |                             | 0.38 U      | 0.93 U                      |
| VANADIUM                 | 27.8 J       | 58.3 J                      |             |                             | 66.7 J      |                             | 36.8 J      |                             | 14.8        | 25.6 J                      |
| ZINC                     | 769 J        | 4040 J                      |             |                             | 7850 J      |                             | 2810 J      |                             | 62.8        | 1090 J                      |
| Mercury by CV (mg/kg)    |              |                             |             |                             |             |                             |             |                             |             |                             |
| MERCURY                  | 0.58 J       |                             | 0.97 J      |                             | 2.4 J       |                             | 2.8 J       |                             | 0.26        | 0.73 J                      |
| PCBs by MC ARO (mg/kg)   |              |                             |             |                             |             |                             |             |                             |             |                             |
| PCB-1016 (AROCOR 1016)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1221 (AROCOR 1221)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1232 (AROCOR 1232)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1242 (AROCOR 1242)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1248 (AROCOR 1248)   | 0.13 J       |                             | 0.87        |                             | 1 J         |                             | 0.19        |                             | 0.011 U     | 0.44 J                      |
| PCB-1254 (AROCOR 1254)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1260 (AROCOR 1260)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1262 (AROCOR 1262)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCB-1268 (AROCOR 1268)   | 0.011 U      |                             | 0.011 U     |                             | 0.011 UJ    |                             | 0.011 U     |                             | 0.011 U     | 0.011 U                     |
| PCBs (total)             | 0.13 J       |                             | 0.87        |                             | 1 J         |                             | 0.19        |                             | 0.011 U     | 0.44 J                      |

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Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID R2-008-V-Z1P R2-008-V-Z2 R2-008-V-Z3 R2-008-V-Z4 R2-008-V-Z5 R2-009-V-Z1 R2-009-V-Z1P R2-009-V-Z2 R2-009-V-Z3 |  |                                                                                                       |          |         |        |          |          |          |         |       |  |  |
|-------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|----------|---------|--------|----------|----------|----------|---------|-------|--|--|
| Sample Date                                                                                                             |  | Sample Date 5/19/2010 5/19/2010 5/19/2010 5/19/2010 5/19/2010 5/19/2010 5/19/2010 5/19/2010 5/19/2010 |          |         |        |          |          |          |         |       |  |  |
| Sample Depth Range (ft BGS)                                                                                             |  | Sample Depth Range (ft BGS) 0-1 1-2 1-2 2-3 2-3 3-4 40638-5 0-1 1-2 2-3                               |          |         |        |          |          |          |         |       |  |  |
| Analyte                                                                                                                 |  |                                                                                                       |          |         |        |          |          |          |         |       |  |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                                |  |                                                                                                       |          |         |        |          |          |          |         |       |  |  |
| 2-METHYLNAPHTHALENE                                                                                                     |  | 0.011                                                                                                 | 0.0091   | 0.021   | 0.027  | 0.0021 U | 0.0017 U | 0.0017 U | 0.058   | 0.015 |  |  |
| ACENAPHTHENE                                                                                                            |  | 0.0053 U                                                                                              | 0.0044 U | 0.021   | 0.027  | 0.0021 U | 0.0017 U | 0.0017 U | 0.04    | 0.017 |  |  |
| ACENAPHTHYLENE                                                                                                          |  | 0.032                                                                                                 | 0.024    | 0.034   | 0.032  | 0.011    | 0.013    | 0.014    | 0.051   | 0.036 |  |  |
| ANTHRACENE                                                                                                              |  | 0.022                                                                                                 | 0.011    | 0.049 U | 0.074  | 0.0021 U | 0.019    | 0.086    | 0.084   | 0.04  |  |  |
| BENZO(A)ANTHRACENE                                                                                                      |  | 0.17                                                                                                  | 0.078    | 0.21    | 0.3 J  | 0.0059   | 0.084    | 0.13     | 0.63    | 0.18  |  |  |
| BENZO(A)PYRENE                                                                                                          |  | 0.23                                                                                                  | 0.074    | 0.26    | 0.33 J | 0.0052   | 0.12     | 0.24     | 0.89    | 0.22  |  |  |
| BENZO(B)FLUORANTHENE                                                                                                    |  | 0.33 J                                                                                                | 0.051    | 0.07    | 0.13 J | 0.0021 U | 0.1      | 0.21     | 0.41 J  | 0.23  |  |  |
| BENZO(K)FLUORANTHENE                                                                                                    |  | 0.26                                                                                                  | 0.057    | 0.093   | 0.39 J | 0.0045   | 0.084    | 0.14     | 0.32 J  | 0.15  |  |  |
| CHRYSENE                                                                                                                |  | 0.25                                                                                                  | 0.11     | 0.4     | 0.45 J | 0.0075   | 0.11     | 0.18     | 1.1     | 0.26  |  |  |
| DIBENZ(A,H)ANTHRACENE                                                                                                   |  | 0.028                                                                                                 | 0.0094   | 0.023   | 0.068  | 0.0021 U | 0.039    | 0.064    | 0.26 J  | 0.074 |  |  |
| FLUORANTHENE                                                                                                            |  | 0.36                                                                                                  | 0.16     | 0.37    | 0.69 J | 0.011    | 0.13     | 0.25     | 0.76    | 0.33  |  |  |
| FLUORENE                                                                                                                |  | 0.014                                                                                                 | 0.019    | 0.059   | 0.076  | 0.0021 U | 0.0017 U | 0.01 J   | 0.068 U | 0.032 |  |  |
| INDENO(1,2,3-C,D)PYRENE                                                                                                 |  | 0.089                                                                                                 | 0.028    | 0.046   | 0.17 J | 0.0021 U | 0.087    | 0.14     | 0.33 J  | 0.14  |  |  |
| NAPHTHALENE                                                                                                             |  | 0.011                                                                                                 | 0.0044 U | 0.012   | 0.021  | 0.0021 U | 0.0017 U | 0.0017 U | 0.025   | 0.013 |  |  |
| PHENANTHRENE                                                                                                            |  | 0.11                                                                                                  | 0.063    | 0.25    | 0.42 J | 0.0051   | 0.059    | 0.082    | 0.68    | 0.15  |  |  |
| PYRENE                                                                                                                  |  | 0.43                                                                                                  | 0.16     | 0.44    | 0.88 J | 0.012    | 0.0017 U | 0.0017 U | 0.76    | 0.31  |  |  |
| PAHs (total)                                                                                                            |  | 2.4 J                                                                                                 | 0.89 J   | 2.4 J   | 4.2 J  | 0.062 J  | 0.93     | 1.7 J    | 7.1 J   | 2.4   |  |  |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Analyte                  | Sample ID |     | Sample Date |     | Sample Depth Range (ft BGS) |     | R2-009-V-Z4 |       | R2-009-VR |       | R2-009-V-Z5 |          | R2-010-V-Z1a |          | R2-010-V-Z1b |          | R2-010-V-Z2 |        | R2-010-V-Z3 |          | R2-010-V-Z4 |          | R2-010-V-Z5 |          |
|--------------------------|-----------|-----|-------------|-----|-----------------------------|-----|-------------|-------|-----------|-------|-------------|----------|--------------|----------|--------------|----------|-------------|--------|-------------|----------|-------------|----------|-------------|----------|
|                          | 5/19/2010 | 3-4 | 5/19/2010   | 3-4 | 5/19/2010                   | 3-4 | 5/19/2010   | 4-5.5 | 5/19/2010 | 0.5-1 | 5/25/2010   | 0.036 UJ | 5/25/2010    | 0.037 UJ | 5/25/2010    | 0.034 UJ | 5/25/2010   | 12.6 J | 5/25/2010   | 0.032 UJ | 5/25/2010   | 0.037 UJ | 5/25/2010   | 0.034 UJ |
| Metals by C200.7 (mg/kg) |           |     |             |     |                             |     |             |       |           |       |             |          |              |          |              |          |             |        |             |          |             |          |             |          |
| ALUMINUM                 | 16800 J   |     | 17700 J     |     | 12700 J                     |     | 18900 J     |       | 19200 J   |       | 18200 J     |          | 19800 J      |          | 19100 J      |          | 18800 J     |        |             |          |             |          |             |          |
| ANTIMONY                 | 0.99 UJ   |     | 1.1 UJ      |     | 0.8 UJ                      |     | 0.46 UJ     |       | 0.45 UJ   |       | 0.43 UJ     |          | 0.4 UJ       |          | 0.47 UJ      |          | 0.42 UJ     |        |             |          |             |          |             |          |
| ARSENIC                  | 17.3 J    |     | 8.8 J       |     | 12.8 J                      |     | 4.3 J       |       | 4.6 J     |       | 5.3 J       |          | 7.2 J        |          | 11.3 J       |          | 12.1 J      |        |             |          |             |          |             |          |
| BARIUM                   | 354 J     |     | 263 J       |     | 303 J                       |     | 205 J       |       | 212 J     |       | 268 J       |          | 312 J        |          | 344 J        |          | 365 J       |        |             |          |             |          |             |          |
| BERYLLIUM                | 0.37 J    |     | 0.61 J      |     | 0.49 J                      |     | 0.037 UJ    |       | 0.036 UJ  |       | 0.034 UJ    |          | 0.032 UJ     |          | 0.037 UJ     |          | 0.034 UJ    |        |             |          |             |          |             |          |
| CADMIUM                  | 8.8 J     |     | 7.4 J       |     | 5.7 J                       |     | 2.3 J       |       | 2.7 J     |       | 7.5 J       |          | 12.6 J       |          | 18.5 J       |          | 11.7 J      |        |             |          |             |          |             |          |
| CALCIUM                  | 12800 J   |     | 20600 J     |     | 10700 J                     |     | 14800 J     |       | 16500 J   |       | 20300 J     |          | 18600 J      |          | 15600 J      |          | 13000 J     |        |             |          |             |          |             |          |
| CHROMIUM                 | 554 J     |     | 245 J       |     | 301 J                       |     | 113 J       |       | 135 J     |       | 250 J       |          | 634 J        |          | 1950 J       |          | 911 J       |        |             |          |             |          |             |          |
| COBALT                   | 18.9 J    |     | 18 J        |     | 15.2 J                      |     | 0.092 UJ    |       | 0.089 UJ  |       | 19.1 J      |          | 27.9 J       |          | 19.5 J       |          | 19.8 J      |        |             |          |             |          |             |          |
| COPPER                   | 1740 J    |     | 493 J       |     | 799 J                       |     | 267 J       |       | 302 J     |       | 513 J       |          | 930 J        |          | 2030 J       |          | 2650 J      |        |             |          |             |          |             |          |
| IRON                     | 25400 J   |     | 28100 J     |     | 19600 J                     |     | 26300 J     |       | 26900 J   |       | 26900 J     |          | 30000 J      |          | 27200 J      |          | 27400 J     |        |             |          |             |          |             |          |
| LEAD                     | 2650 J    |     | 705 J       |     | 698 J                       |     | 329 J       |       | 395 J     |       | 764 J       |          | 1190 J       |          | 3530 J       |          | 4580 J      |        |             |          |             |          |             |          |
| MAGNESIUM                | 6640 J    |     | 7370 J      |     | 5460 J                      |     | 8050 J      |       | 8210 J    |       | 7530 J      |          | 8520 J       |          | 6800 J       |          | 6670 J      |        |             |          |             |          |             |          |
| MANGANESE                | 340 J     |     | 583 J       |     | 279 J                       |     | 452 J       |       | 427 J     |       | 550 J       |          | 453 J        |          | 321 J        |          | 319 J       |        |             |          |             |          |             |          |
| NICKEL                   | 205 J     |     | 153 J       |     | 125 J                       |     | 58.5 J      |       | 68.9 J    |       | 153 J       |          | 473 J        |          | 393 J        |          | 318 J       |        |             |          |             |          |             |          |
| POTASSIUM                | 1810 J    |     | 1990 J      |     | 1480 J                      |     | 2610 J      |       | 2490 J    |       | 2290 J      |          | 2350 J       |          | 2130 J       |          | 2090 J      |        |             |          |             |          |             |          |
| SELENIUM                 | 4.1 J     |     | 0.95 UJ     |     | 2.9 J                       |     | 1.2 UJ      |       | 1.5 J     |       | 1.2 J       |          | 2.9 J        |          | 4.2 J        |          | 2.9 J       |        |             |          |             |          |             |          |
| SILVER                   | 5.7 J     |     | 2.2 J       |     | 3.7 J                       |     | 1.1 J       |       | 1.4 J     |       | 3.1 J       |          | 3.7 J        |          | 4.7 J        |          | 6.3 J       |        |             |          |             |          |             |          |
| SODIUM                   | 566 J     |     | 650 J       |     | 6 U                         |     | 10.8 UJ     |       | 10.4 UJ   |       | 10.1 UJ     |          | 9.3 UJ       |          | 10.9 UJ      |          | 9.9 UJ      |        |             |          |             |          |             |          |
| THALLIUM                 | 0.76 U    |     | 0.84 UJ     |     | 0.62 U                      |     | 0.4 UJ      |       | 0.39 UJ   |       | 0.37 UJ     |          | 0.34 U       |          | 0.41 U       |          | 0.37 U      |        |             |          |             |          |             |          |
| VANADIUM                 | 42.2 J    |     | 35.5 J      |     | 25 J                        |     | 28.8 J      |       | 29.4 J    |       | 34 J        |          | 61.6 J       |          | 100 J        |          | 62.1 J      |        |             |          |             |          |             |          |
| ZINC                     | 3950 J    |     | 2360 J      |     | 2060 J                      |     | 1030 J      |       | 1220 J    |       | 2780 J      |          | 4970 J       |          | 11500 J      |          | 8160 J      |        |             |          |             |          |             |          |
| Mercury by CV (mg/kg)    |           |     |             |     |                             |     |             |       |           |       |             |          |              |          |              |          |             |        |             |          |             |          |             |          |
| MERCURY                  | 2.4 J     |     | 0.84 J      |     | 2.2 J                       |     | 0.7 J       |       | 0.83 J    |       | 0.78 J      |          | 1.1 J        |          | 1.8 J        |          | 3 J         |        |             |          |             |          |             |          |
| PCBS by MC ARO (mg/kg)   |           |     |             |     |                             |     |             |       |           |       |             |          |              |          |              |          |             |        |             |          |             |          |             |          |
| PCB-1016 (AROCOR 1016)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1221 (AROCOR 1221)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1232 (AROCOR 1232)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1242 (AROCOR 1242)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1248 (AROCOR 1248)   | 0.25 J    |     | 0.5         |     | 0.011 UJ                    |     | 0.011 U     |       | 0.13 J    |       | 0.17 J      |          | 0.43 J       |          | 1.2 J        |          | 0.49 J      |        |             |          |             |          |             |          |
| PCB-1254 (AROCOR 1254)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1260 (AROCOR 1260)   | 0.011 UJ  |     | 0.011 U     |     | 0.018 J                     |     | 0.011 U     |       | 0.033 J   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1262 (AROCOR 1262)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCB-1268 (AROCOR 1268)   | 0.011 UJ  |     | 0.011 U     |     | 0.011 UJ                    |     | 0.011 U     |       | 0.011 U   |       | 0.011 U     |          | 0.011 U      |          | 0.011 U      |          | 0.011 U     |        |             |          |             |          |             |          |
| PCBs (total)             | 0.25 J    |     | 0.5         |     | 0.018 J                     |     | 0.011 U     |       | 0.16 J    |       | 0.17 J      |          | 0.43 J       |          | 1.2 J        |          | 0.49 J      |        |             |          |             |          |             |          |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Analyte                                  | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R2-009-V-Z4 |          | R2-009-VR |  | R2-009-V-Z5 |  | R2-010-V-Z1a |  | R2-010-V-Z1b |       | R2-010-V-Z2 |       | R2-010-V-Z3 |       | R2-010-V-Z4 |  | R2-010-V-Z5 |  |  |
|------------------------------------------|-----------|--|-------------|--|-----------------------------|--|-------------|----------|-----------|--|-------------|--|--------------|--|--------------|-------|-------------|-------|-------------|-------|-------------|--|-------------|--|--|
|                                          | 5/19/2010 |  | 5/19/2010   |  | 3-4                         |  | 5/19/2010   |          | 5/19/2010 |  | 5/19/2010   |  | 5/25/2010    |  | 5/25/2010    |       | 5/25/2010   |       | 5/25/2010   |       | 5/25/2010   |  | 5/25/2010   |  |  |
|                                          | 3-4       |  | 3-4         |  | 3-4                         |  | 3-4         |          | 3-4       |  | 4-5.5       |  | 0-0.5        |  | 0.5-1        |       | 1-2         |       | 2-3         |       | 3-4         |  | 4-6         |  |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |  |             |  |                             |  |             |          |           |  |             |  |              |  |              |       |             |       |             |       |             |  |             |  |  |
| 2-METHYLNAPHTHALENE                      |           |  |             |  |                             |  | 0.056 J     | 0.0017 U |           |  |             |  |              |  | 0.85 J       | 0.015 | 0.013       | 0.019 | 0.037       | 0.44  | 0.07        |  |             |  |  |
| ACENAPHTHENE                             |           |  |             |  |                             |  | 0.071 J     | 0.0017 U |           |  |             |  |              |  | 2.1 J        | 0.014 | 0.013       | 0.022 | 0.027       | 0.064 | 0.08        |  |             |  |  |
| ACENAPHTHYLENE                           |           |  |             |  |                             |  | 0.0017 U    | 0.013 J  |           |  |             |  |              |  | 0.2          | 0.048 | 0.046       | 0.057 | 0.066       | 0.07  | 0.18        |  |             |  |  |
| ANTHRACENE                               |           |  |             |  |                             |  | 0.37 J      | 0.016 J  |           |  |             |  |              |  | 4 J          | 0.053 | 0.05        | 0.081 | 0.059       | 0.25  | 0.29        |  |             |  |  |
| BENZO(A)ANTHRACENE                       |           |  |             |  |                             |  | 0.41 J      | 0.094 J  |           |  |             |  |              |  | 6.2 J        | 0.26  | 0.24        | 0.3   | 0.31        | 1.1   | 0.83        |  |             |  |  |
| BENZO(A)PYRENE                           |           |  |             |  |                             |  | 0.47 J      | 0.078 J  |           |  |             |  |              |  | 4.6 J        | 0.25  | 0.25        | 0.4   | 0.32        | 1.9   | 0.72        |  |             |  |  |
| BENZO(B)FLUORANTHENE                     |           |  |             |  |                             |  | 0.51 J      | 0.028 J  |           |  |             |  |              |  | 3.1 J        | 0.28  | 0.29        | 0.41  | 0.24        | 0.79  | 0.7         |  |             |  |  |
| BENZO(K)FLUORANTHENE                     |           |  |             |  |                             |  | 0.31 J      | 0.083 J  |           |  |             |  |              |  | 2 J          | 0.21  | 0.2         | 0.32  | 0.22        | 0.43  | 0.46        |  |             |  |  |
| CHRYSENE                                 |           |  |             |  |                             |  | 0.59 J      | 0.11 J   |           |  |             |  |              |  | 6.3 J        | 0.38  | 0.35        | 0.44  | 0.47        | 1.8   | 1.3         |  |             |  |  |
| DIBENZ(A,H)ANTHRACENE                    |           |  |             |  |                             |  | 0.17 J      | 0.039 J  |           |  |             |  |              |  | 1.4 J        | 0.1 J | 0.0017 U    | 0.16  | 0.11        | 0.4   | 0.31        |  |             |  |  |
| FLUORANTHENE                             |           |  |             |  |                             |  | 0.77 J      | 0.13 J   |           |  |             |  |              |  | 7.7 J        | 0.61  | 0.53        | 0.62  | 0.68        | 1     | 1.8         |  |             |  |  |
| FLUORENE                                 |           |  |             |  |                             |  | 0.0017 U    | 0.012 J  |           |  |             |  |              |  | 1.6 J        | 0.029 | 0.027       | 0.05  | 0.063       | 0.27  | 0.26        |  |             |  |  |
| INDENO(1,2,3-C,D)PYRENE                  |           |  |             |  |                             |  | 0.32 J      | 0.08 J   |           |  |             |  |              |  | 2.1 J        | 0.18  | 0.18        | 0.25  | 0.18        | 0.42  | 0.46        |  |             |  |  |
| NAPHTHALENE                              |           |  |             |  |                             |  | 0.042 J     | 0.0017 U |           |  |             |  |              |  | 0.63         | 0.012 | 0.01        | 0.014 | 0.017       | 0.042 | 0.036       |  |             |  |  |
| PHENANTHRENE                             |           |  |             |  |                             |  | 0.34 J      | 0.07 J   |           |  |             |  |              |  | 11 J         | 0.2   | 0.18        | 0.26  | 0.36        | 1.1   | 1.1         |  |             |  |  |
| PYRENE                                   |           |  |             |  |                             |  | 0.71 J      | 0.12 J   |           |  |             |  |              |  | 9.7 J        | 0.52  | 0.44        | 0.53  | 0.59        | 1.3   | 1.4         |  |             |  |  |
| PAHs (total)                             |           |  |             |  |                             |  | 5.5 J       | 0.93 J   |           |  |             |  |              |  | 65 J         | 3.4 J | 3           | 4.3   | 4           | 12    | 11          |  |             |  |  |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Sample ID                   |  | R2-010-V-Z6 |  | R2-010-VR |  | R2-010-V-Z7a |  | R2-010-V-Z7b |  | R2-011-V-Z1a |  | R2-011-V-Z1b |  | R2-011-V-Z2 |  | R2-011-V-Z3 |  | R2-011-V-Z4 |  |
|-----------------------------|--|-------------|--|-----------|--|--------------|--|--------------|--|--------------|--|--------------|--|-------------|--|-------------|--|-------------|--|
| Sample Date                 |  | 5/25/2010   |  | 5/25/2010 |  | 5/25/2010    |  | 5/25/2010    |  | 5/25/2010    |  | 5/25/2010    |  | 5/25/2010   |  | 5/25/2010   |  | 5/25/2010   |  |
| Sample Depth Range (ft BGS) |  | 6-8         |  | 6-8       |  | 8-9          |  | 9-10         |  | 0-0.5        |  | 0.5-1        |  | 1-2         |  | 2-3         |  | 3-4         |  |
| Analyte                     |  |             |  |           |  |              |  |              |  |              |  |              |  |             |  |             |  |             |  |
| Metals by C200.7 (mg/kg)    |  |             |  |           |  |              |  |              |  |              |  |              |  |             |  |             |  |             |  |
| ALUMINUM                    |  | 16900 J     |  | 16300 J   |  | 12000        |  | 11200        |  | 14700 J      |  | 13900 J      |  | 16200 J     |  | 16400 J     |  | 17100 J     |  |
| ANTIMONY                    |  | 2.3 J       |  | 0.31 UJ   |  | 0.19 UJ      |  | 0.19 UJ      |  | 0.53 J       |  | 0.44 UJ      |  | 0.4 UJ      |  | 0.4 UJ      |  | 0.38 UJ     |  |
| ARSENIC                     |  | 10.9 J      |  | 9.2 J     |  | 1.7          |  | 2.2          |  | 4.2 J        |  | 3.5 J        |  | 5.1 J       |  | 5.3 J       |  | 7 J         |  |
| BARIUM                      |  | 345 J       |  | 299 J     |  | 136          |  | 190          |  | 167 J        |  | 171 J        |  | 203 J       |  | 261 J       |  | 268 J       |  |
| BERYLLIUM                   |  | 0.027 UJ    |  | 0.024 UJ  |  | 0.015 UJ     |  | 0.015 UJ     |  | 0.037 UJ     |  | 0.035 UJ     |  | 0.62 J      |  | 0.032 UJ    |  | 0.031 UJ    |  |
| CADMIUM                     |  | 7.1 J       |  | 5.3 J     |  | 0.0072 UJ    |  | 0.0071 UJ    |  | 1.9 J        |  | 2.2 J        |  | 3 J         |  | 8.1 J       |  | 12.2 J      |  |
| CALCIUM                     |  | 10400 J     |  | 9000 J    |  | 2030         |  | 3160         |  | 14400 J      |  | 13700 J      |  | 17000 J     |  | 18100 J     |  | 16900 J     |  |
| CHROMIUM                    |  | 449 J       |  | 318 J     |  | 16.9         |  | 17.2         |  | 103 J        |  | 112 J        |  | 155 J       |  | 306 J       |  | 709 J       |  |
| COBALT                      |  | 14.9 J      |  | 14.6 J    |  | 11.2         |  | 10.6         |  | 11.8 J       |  | 11.3 J       |  | 13.1 J      |  | 19.4 J      |  | 29.7 J      |  |
| COPPER                      |  | 1210 J      |  | 831 J     |  | 9.1          |  | 8.7          |  | 231 J        |  | 255 J        |  | 312 J       |  | 606 J       |  | 926 J       |  |
| IRON                        |  | 24600 J     |  | 24000 J   |  | 17300        |  | 18500        |  | 22200 J      |  | 20900 J      |  | 23700 J     |  | 24600 J     |  | 27500 J     |  |
| LEAD                        |  | 1190 J      |  | 844 J     |  | 12.2         |  | 6.8          |  | 291 J        |  | 313 J        |  | 416 J       |  | 802 J       |  | 1230 J      |  |
| MAGNESIUM                   |  | 6780 J      |  | 6580 J    |  | 4980         |  | 4640         |  | 7110 J       |  | 6820 J       |  | 7500 J      |  | 7010 J      |  | 7870 J      |  |
| MANGANESE                   |  | 426 J       |  | 441 J     |  | 437          |  | 1910         |  | 481 J        |  | 403 J        |  | 481 J       |  | 539 J       |  | 447 J       |  |
| NICKEL                      |  | 152 J       |  | 117 J     |  | 22.9         |  | 24.6         |  | 52.8 J       |  | 55.6 J       |  | 71.5 J      |  | 218 J       |  | 493 J       |  |
| POTASSIUM                   |  | 1980 J      |  | 2000 J    |  | 1280         |  | 1100         |  | 2130 J       |  | 1940 J       |  | 2200 J      |  | 1990 J      |  | 2120 J      |  |
| SELENIUM                    |  | 1.7 J       |  | 1.3 J     |  | 0.74 J       |  | 0.47 U       |  | 1.8 J        |  | 1.5 J        |  | 1.5 J       |  | 1.7 J       |  | 2.3 J       |  |
| SILVER                      |  | 4.6 J       |  | 3.1 J     |  | 0.043 U      |  | 0.042 U      |  | 0.11 UJ      |  | 0.099 UJ     |  | 1.6 J       |  | 3.3 J       |  | 3.7 J       |  |
| SODIUM                      |  | 7.8 UJ      |  | 7.1 UJ    |  | 4.4 UJ       |  | 4.4 UJ       |  | 10.9 UJ      |  | 10.2 UJ      |  | 189 J       |  | 9.3 UJ      |  | 9 UJ        |  |
| THALLIUM                    |  | 0.29 U      |  | 0.27 UJ   |  | 0.16 U       |  | 0.16 U       |  | 0.41 U       |  | 0.38 U       |  | 0.34 U      |  | 0.34 U      |  | 0.33 U      |  |
| VANADIUM                    |  | 31.1 J      |  | 28.3 J    |  | 19.3         |  | 19.6         |  | 24 J         |  | 22.9 J       |  | 26.7 J      |  | 34.1 J      |  | 69.9 J      |  |
| ZINC                        |  | 2420 J      |  | 1940 J    |  | 65.6         |  | 60.8         |  | 906 J        |  | 1020 J       |  | 1340 J      |  | 3060 J      |  | 4890 J      |  |
| Mercury by CV (mg/kg)       |  |             |  |           |  |              |  |              |  |              |  |              |  |             |  |             |  |             |  |
| MERCURY                     |  | 2.3 J       |  | 1.9 J     |  | 0.09 J+      |  | 0.32 J+      |  | 0.67 J       |  | 0.77 J       |  | 1.1 J       |  | 1.3 J       |  | 1.4 J       |  |
| PCBS by MC ARO (mg/kg)      |  |             |  |           |  |              |  |              |  |              |  |              |  |             |  |             |  |             |  |
| PCB-1016 (AROCOR 1016)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1221 (AROCOR 1221)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1232 (AROCOR 1232)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1242 (AROCOR 1242)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1248 (AROCOR 1248)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.38         |  | 0.14 J       |  | 0.011 U     |  | 0.53 J      |  | 0.46 J      |  |
| PCB-1254 (AROCOR 1254)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1260 (AROCOR 1260)      |  | 0.045 J     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1262 (AROCOR 1262)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCB-1268 (AROCOR 1268)      |  | 0.011 U     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 U     |  |
| PCBs (total)                |  | 0.045 J     |  | 0.011 U   |  | 0.011 U      |  | 0.011 U      |  | 0.38         |  | 0.14 J       |  | 0.011 U     |  | 0.53 J      |  | 0.46 J      |  |

Key at the end of Table

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Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID                                |  | R2-010-V-Z6 | R2-010-VR | R2-010-V-Z7a | R2-010-V-Z7b | R2-011-V-Z1a | R2-011-V-Z1b | R2-011-V-Z2 | R2-011-V-Z3 | R2-011-V-Z4 |
|------------------------------------------|--|-------------|-----------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
| Sample Date                              |  | 5/25/2010   | 5/25/2010 | 5/25/2010    | 5/25/2010    | 5/25/2010    | 5/25/2010    | 5/25/2010   | 5/25/2010   | 5/25/2010   |
| Sample Depth Range (ft BGS)              |  | 6-8         | 6-8       | 8-9          | 9-10         | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         |
| Analyte                                  |  |             |           |              |              |              |              |             |             |             |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |             |           |              |              |              |              |             |             |             |
| 2-METHYLNAPHTHALENE                      |  | 0.1         | 0.067     | 0.0017 U     | 0.0017 U     | 0.023 U      | 0.0085 J     | 0.0044 U    | 0.0041 U    | 0.028       |
| ACENAPHTHENE                             |  | 0.13        | 0.11      | 0.0017 U     | 0.0017 U     | 0.023 U      | 0.0054 J     | 0.0044 U    | 0.01        | 0.015       |
| ACENAPHTHYLENE                           |  | 0.36        | 0.26      | 0.0017 U     | 0.0017 U     | 0.023 U      | 0.013        | 0.0044 U    | 0.027       | 0.026       |
| ANTHRACENE                               |  | 0.51        | 0.34      | 0.0017 U     | 0.0017 U     | 0.012        | 0.028        | 0.021       | 0.043       | 0.037       |
| BENZO(A)ANTHRACENE                       |  | 1.4         | 0.84      | 0.0066       | 0.0017 U     | 0.13         | 0.18         | 0.19 J      | 0.2         | 0.24        |
| BENZO(A)PYRENE                           |  | 1.2         | 0.76      | 0.0017 U     | 0.0017 U     | 0.1          | 0.17         | 0.073       | 0.2         | 0.2         |
| BENZO(B)FLUORANTHENE                     |  | 1.2         | 0.76      | 0.0055       | 0.0017 U     | 0.11         | 0.14         | 0.2 J       | 0.13        | 0.24        |
| BENZO(K)FLUORANTHENE                     |  | 0.99        | 0.61      | 0.0044       | 0.0017 U     | 0.077        | 0.13         | 0.058       | 0.15        | 0.18        |
| CHRYSENE                                 |  | 1.7         | 1.2       | 0.0078       | 0.0017 U     | 0.15         | 0.2          | 0.21 J      | 0.25        | 0.32        |
| DIBENZ(A,H)ANTHRACENE                    |  | 0.35        | 0.26      | 0.0017 U     | 0.0017 U     | 0.039 J      | 0.017        | 0.045 J     | 0.012       | 0.021       |
| FLUORANTHENE                             |  | 3           | 2.3       | 0.009        | 0.0017 U     | 0.25         | 0.34         | 0.34 J      | 0.45        | 0.52        |
| FLUORENE                                 |  | 0.39        | 0.28      | 0.0017 U     | 0.0017 U     | 0.023 U      | 0.0093       | 0.01        | 0.021       | 0.022       |
| INDENO(1,2,3-C,D)PYRENE                  |  | 0.72        | 0.46      | 0.0017 U     | 0.0017 U     | 0.045 J      | 0.031        | 0.043 J     | 0.023       | 0.035       |
| NAPHTHALENE                              |  | 0.07        | 0.042     | 0.0017 U     | 0.0017 U     | 0.023 U      | 0.0062       | 0.0044 U    | 0.01        | 0.012       |
| PHENANTHRENE                             |  | 1.5         | 1.2       | 0.0059       | 0.0017 U     | 0.069        | 0.088 J      | 0.071       | 0.12        | 0.17        |
| PYRENE                                   |  | 2.7         | 1.9       | 0.01         | 0.0017 U     | 0.14         | 0.16         | 0.19 J      | 0.19        | 0.27        |
| PAHs (total)                             |  | 17          | 12        | 0.054        | 0.0017 U     | 1.2 J        | 1.5 J        | 1.5 J       | 1.9 J       | 2.3 J       |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Sample ID                   |  |  | Sample Date |  |  | Sample Depth Range (ft BGS) |  |  | R2-011-V-Z7 |  |  | R2-011-V-Z8 |  |  | R2-012-V-Z1a |  |  | R2-012-V-Z1b |  |  | R2-012-V-Z2 |  |  | R2-012-V-Z3 |  |  | R2-012-V-Z4 |  |  |           |  |  |
|-----------------------------|--|--|-------------|--|--|-----------------------------|--|--|-------------|--|--|-------------|--|--|--------------|--|--|--------------|--|--|-------------|--|--|-------------|--|--|-------------|--|--|-----------|--|--|
| Sample Date                 |  |  | 5/25/2010   |  |  | 4-6                         |  |  | 5/25/2010   |  |  | 6-8         |  |  | 5/25/2010    |  |  | 8-10         |  |  | 10-11.5     |  |  | 5/25/2010   |  |  | 5/25/2010   |  |  | 5/25/2010 |  |  |
| Sample Depth Range (ft BGS) |  |  | 4-6         |  |  | 4-6                         |  |  | 5/25/2010   |  |  | 6-8         |  |  | 5/25/2010    |  |  | 8-10         |  |  | 10-11.5     |  |  | 5/25/2010   |  |  | 5/25/2010   |  |  | 5/25/2010 |  |  |
| Analyte                     |  |  |             |  |  |                             |  |  |             |  |  |             |  |  |              |  |  |              |  |  |             |  |  |             |  |  |             |  |  |           |  |  |
| Metals by C200.7 (mg/kg)    |  |  |             |  |  |                             |  |  |             |  |  |             |  |  |              |  |  |              |  |  |             |  |  |             |  |  |             |  |  |           |  |  |
| ALUMINUM                    |  |  | 18400 J     |  |  | 16300 J                     |  |  | 15600 J     |  |  | 17900       |  |  | 19200 J      |  |  | 18600 J      |  |  | 17400 J     |  |  | 16800 J     |  |  | 17200 J     |  |  |           |  |  |
| ANTIMONY                    |  |  | 0.45 UJ     |  |  | 0.39 UJ                     |  |  | 0.34 UJ     |  |  | 0.28 UJ     |  |  | 0.45 UJ      |  |  | 0.44 UJ      |  |  | 0.41 UJ     |  |  | 0.38 UJ     |  |  | 0.41 UJ     |  |  |           |  |  |
| ARSENIC                     |  |  | 10.1 J      |  |  | 12.5 J                      |  |  | 12.7 J      |  |  | 9.7         |  |  | 5.5 J        |  |  | 5.1 J        |  |  | 5.6 J       |  |  | 6.3 J       |  |  | 9 J         |  |  |           |  |  |
| BARIUM                      |  |  | 348 J       |  |  | 334 J                       |  |  | 337 J       |  |  | 286 J       |  |  | 202 J        |  |  | 200 J        |  |  | 237 J       |  |  | 251 J       |  |  | 313 J       |  |  |           |  |  |
| BERYLLIUM                   |  |  | 0.036 UJ    |  |  | 0.57 J                      |  |  | 0.61 J      |  |  | 0.69 J      |  |  | 0.75 J       |  |  | 0.71 J       |  |  | 0.64 J      |  |  | 0.63 J      |  |  | 0.64 J      |  |  |           |  |  |
| CADMIUM                     |  |  | 16.8 J      |  |  | 11.1 J                      |  |  | 7 J         |  |  | 1.7 J       |  |  | 1.9 J        |  |  | 2.2 J        |  |  | 5.1 J       |  |  | 9.6 J       |  |  | 16.6 J      |  |  |           |  |  |
| CALCIUM                     |  |  | 15400 J     |  |  | 11600 J                     |  |  | 10100 J     |  |  | 15200       |  |  | 16800 J      |  |  | 17400 J      |  |  | 19000 J     |  |  | 19500 J     |  |  | 16900 J     |  |  |           |  |  |
| CHROMIUM                    |  |  | 1590 J      |  |  | 737 J                       |  |  | 501 J       |  |  | 64.9        |  |  | 94.6 J       |  |  | 110 J        |  |  | 183 J       |  |  | 351 J       |  |  | 961 J       |  |  |           |  |  |
| COBALT                      |  |  | 21.2 J      |  |  | 17.9 J                      |  |  | 16.4 J      |  |  | 12.1 J      |  |  | 13.2 J       |  |  | 13.5 J       |  |  | 14.4 J      |  |  | 24.1 J      |  |  | 32.6 J      |  |  |           |  |  |
| COPPER                      |  |  | 1740 J      |  |  | 2120 J                      |  |  | 1110 J      |  |  | 224         |  |  | 215 J        |  |  | 256 J        |  |  | 381 J       |  |  | 737 J       |  |  | 1110 J      |  |  |           |  |  |
| IRON                        |  |  | 28400 J     |  |  | 24700 J                     |  |  | 23000 J     |  |  | 25200       |  |  | 26400 J      |  |  | 26400 J      |  |  | 26600 J     |  |  | 24700 J     |  |  | 29300 J     |  |  |           |  |  |
| LEAD                        |  |  | 2750 J      |  |  | 3620 J                      |  |  | 589 J       |  |  | 280 J       |  |  | 271 J        |  |  | 325 J        |  |  | 540 J       |  |  | 957 J       |  |  | 1540 J      |  |  |           |  |  |
| MAGNESIUM                   |  |  | 7220 J      |  |  | 6500 J                      |  |  | 6670 J      |  |  | 7210        |  |  | 7930 J       |  |  | 8160 J       |  |  | 7680 J      |  |  | 7420 J      |  |  | 7860 J      |  |  |           |  |  |
| MANGANESE                   |  |  | 343 J       |  |  | 313 J                       |  |  | 324 J       |  |  | 397         |  |  | 497 J        |  |  | 481 J        |  |  | 549 J       |  |  | 530 J       |  |  | 406 J       |  |  |           |  |  |
| NICKEL                      |  |  | 402 J       |  |  | 249 J                       |  |  | 118 J       |  |  | 39.1        |  |  | 54.2 J       |  |  | 59 J         |  |  | 82.4 J      |  |  | 367 J       |  |  | 619 J       |  |  |           |  |  |
| POTASSIUM                   |  |  | 2150 J      |  |  | 1910 J                      |  |  | 1890 J      |  |  | 2030        |  |  | 2630 J       |  |  | 2520 J       |  |  | 2250 J      |  |  | 2130 J      |  |  | 2130 J      |  |  |           |  |  |
| SELENIUM                    |  |  | 4.2 J       |  |  | 2.3 J                       |  |  | 2 J         |  |  | 1.3 J       |  |  | 1.6 J        |  |  | 1.8 J        |  |  | 1.2 J       |  |  | 1.5 J       |  |  | 3.5 J       |  |  |           |  |  |
| SILVER                      |  |  | 4.8 J       |  |  | 5.9 J                       |  |  | 4.6 J       |  |  | 0.9 J       |  |  | 0.1 UJ       |  |  | 0.1 UJ       |  |  | 0.093 UJ    |  |  | 3.4 J       |  |  | 4.1 J       |  |  |           |  |  |
| SODIUM                      |  |  | 10.5 UJ     |  |  | 121 J                       |  |  | 101 J       |  |  | 94.3 J      |  |  | 256 J        |  |  | 213 J        |  |  | 182 J       |  |  | 160 J       |  |  | 165 J       |  |  |           |  |  |
| THALLIUM                    |  |  | 0.39 U      |  |  | 0.34 U                      |  |  | 1.5 J       |  |  | 0.25 U      |  |  | 0.39 U       |  |  | 0.38 U       |  |  | 0.36 U      |  |  | 0.33 U      |  |  | 0.35 U      |  |  |           |  |  |
| VANADIUM                    |  |  | 102 J       |  |  | 45.8 J                      |  |  | 27.5 J      |  |  | 27.7        |  |  | 29.8 J       |  |  | 29.1 J       |  |  | 29.1 J      |  |  | 36.3 J      |  |  | 92.4 J      |  |  |           |  |  |
| ZINC                        |  |  | 9170 J      |  |  | 6780 J                      |  |  | 3630 J      |  |  | 864         |  |  | 873 J        |  |  | 1020 J       |  |  | 1810 J      |  |  | 3960 J      |  |  | 5420 J      |  |  |           |  |  |
| Mercury by CV (mg/kg)       |  |  |             |  |  |                             |  |  |             |  |  |             |  |  |              |  |  |              |  |  |             |  |  |             |  |  |             |  |  |           |  |  |
| MERCURY                     |  |  | 2.1 J       |  |  | 5 J                         |  |  | 3 J         |  |  | 3 J         |  |  | 1.5 J        |  |  | 1.1 J        |  |  | 1.1 J       |  |  | 1.2 J       |  |  | 1.4 J       |  |  |           |  |  |
| PCBS by MC ARO (mg/kg)      |  |  |             |  |  |                             |  |  |             |  |  |             |  |  |              |  |  |              |  |  |             |  |  |             |  |  |             |  |  |           |  |  |
| PCB-1016 (AROCOR 1016)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1221 (AROCOR 1221)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1232 (AROCOR 1232)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1242 (AROCOR 1242)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1248 (AROCOR 1248)      |  |  | 4.6 J       |  |  | 0.81 J                      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.22 J       |  |  | 0.6 J        |  |  | 0.37 J      |  |  | 0.62 J      |  |  | 0.48 J      |  |  |           |  |  |
| PCB-1254 (AROCOR 1254)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1260 (AROCOR 1260)      |  |  | 0.32 J      |  |  | 0.17 J                      |  |  | 0.05 J      |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1262 (AROCOR 1262)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCB-1268 (AROCOR 1268)      |  |  | 0.011 U     |  |  | 0.011 U                     |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U      |  |  | 0.011 U      |  |  | 0.011 U     |  |  | 0.011 U     |  |  | 0.011 U     |  |  |           |  |  |
| PCBs (total)                |  |  | 4.9 J       |  |  | 0.98 J                      |  |  | 0.05 J      |  |  | 0.011 U     |  |  | 0.22 J       |  |  | 0.6 J        |  |  | 0.37 J      |  |  | 0.62 J      |  |  | 0.48 J      |  |  |           |  |  |

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID                                |  | R2-011-V-Z5 | R2-011-V-Z6 | R2-011-V-Z7 | R2-011-V-Z8 | R2-012-V-Z1a | R2-012-V-Z1b | R2-012-V-Z2 | R2-012-V-Z3 | R2-012-V-Z4 |
|------------------------------------------|--|-------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|
| Sample Date                              |  | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010    | 5/25/2010    | 5/25/2010   | 5/25/2010   | 5/25/2010   |
| Sample Depth Range (ft BGS)              |  | 4-6         | 6-8         | 8-10        | 10-11.5     | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         |
| Analyte                                  |  |             |             |             |             |              |              |             |             |             |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |             |             |             |             |              |              |             |             |             |
| 2-METHYLNAPHTHALENE                      |  | 0.1 J       | 0.058       | 0.083 J     | 0.081 J     | 0.0017 U     | 0.0017 U     | 0.0017 U    | 0.0017 U    | 0.016       |
| ACENAPHTHENE                             |  | 0.024       | 0.042       | 0.035       | 0.023       | 0.0017 U     | 0.0017 U     | 0.0017 U    | 0.0086      | 0.011       |
| ACENAPHTHYLENE                           |  | 0.032       | 0.086 U     | 0.054       | 0.045       | 0.013        | 0.012        | 0.011       | 0.023       | 0.02        |
| ANTHRACENE                               |  | 0.059 J     | 0.2         | 0.11 J      | 0.1 J       | 0.017        | 0.02         | 0.015       | 0.023       | 0.022       |
| BENZO(A)ANTHRACENE                       |  | 0.36        | 0.55        | 0.31        | 0.31        | 0.062        | 0.094        | 0.081       | 0.14        | 0.1         |
| BENZO(A)PYRENE                           |  | 0.39        | 0.43        | 0.29        | 0.3         | 0.088        | 0.13         | 0.051       | 0.11        | 0.09        |
| BENZO(B)FLUORANTHENE                     |  | 0.25        | 0.54        | 0.17        | 0.26        | 0.077 J      | 0.13 J       | 0.055       | 0.072 J     | 0.098 J     |
| BENZO(K)FLUORANTHENE                     |  | 0.17        | 0.31        | 0.25        | 0.18        | 0.063        | 0.076        | 0.035       | 0.077       | 0.074       |
| CHRYSENE                                 |  | 0.57        | 0.66        | 0.4         | 0.49        | 0.092        | 0.17         | 0.14        | 0.22        | 0.16        |
| DIBENZ(A,H)ANTHRACENE                    |  | 0.025       | 0.012       | 0.012       | 0.018       | 0.031        | 0.038        | 0.019       | 0.041       | 0.032       |
| FLUORANTHENE                             |  | 0.39        | 1.2         | 0.67        | 0.68        | 0.18         | 0.25 J       | 0.21 J      | 0.31        | 0.3         |
| FLUORENE                                 |  | 0.06        | 0.085       | 0.071       | 0.057       | 0.0017 U     | 0.0017 U     | 0.0017 U    | 0.017       | 0.024       |
| INDENO(1,2,3-C,D)PYRENE                  |  | 0.045       | 0.053       | 0.04        | 0.043       | 0.052        | 0.077        | 0.034       | 0.054       | 0.066       |
| NAPHTHALENE                              |  | 0.023       | 0.032       | 0.022       | 0.025       | 0.0017 U     | 0.0017 U     | 0.0017 U    | 0.0017 U    | 0.0017 U    |
| PHENANTHRENE                             |  | 0.21        | 0.47 J      | 0.34        | 0.35        | 0.051        | 0.06         | 0.048       | 0.078       | 0.16 J      |
| PYRENE                                   |  | 0.27        | 0.54        | 0.38        | 0.34        | 0.14         | 0.06 U       | 0.18        | 0.25        | 0.21        |
| PAHs (total)                             |  | 3 J         | 5.2 J       | 3.2 J       | 3.3 J       | 0.94 J       | 1.2 J        | 0.92 J      | 1.5 J       | 1.5 J       |





Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
|-----------------------------|--|-----------------------------|--|--|--|--|--|--|--|--|--|--|
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
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| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
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| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
| Sample Depth Range (ft BGS) |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample ID                   |  | Sample Date                 |  |  |  |  |  |  |  |  |  |  |
| Sample Date                 |  | Sample Depth Range (ft BGS) |  |  |  |  |  |  |  |  |  |  |
|                             |  |                             |  |  |  |  |  |  |  |  |  |  |

## Summary of Results for Reach 2 Sediment Samples

T-56

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Analyte                                  | Sample ID                   | R2-013-V-Z5 | R2-013-V-Z6 | R2-013-V-Z7 | R2-013-V-Z8 | R2-014-V-Z1a | R2-014-V-Z1b | R2-014-V-Z2 | R2-014-V-Z3 | R2-014-V-Z4 |
|------------------------------------------|-----------------------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|
|                                          | Sample Date                 | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010    | 5/25/2010    | 5/25/2010   | 5/25/2010   | 5/25/2010   |
|                                          | Sample Depth Range (ft BGS) | 4-6         | 6-8         | 8-10        | 10-12       | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |             |             |             |             |              |              |             |             |             |
| 2-METHYLNAPHTHALENE                      | 0.075                       | 0.091       | 0.12        | 0.19        | 0.023       | 0.019 J      | 0.019        | 0.063       | 0.36 J      | 0.36 J      |
| ACENAPHTHENE                             | 0.018                       | 0.046       | 0.049       | 0.071       | 0.021       | 0.013        | 0.01         | 0.016       | 0.041       | 0.041       |
| ACENAPHTHYLENE                           | 0.022                       | 0.086       | 0.11        | 0.086       | 0.026       | 0.027        | 0.025        | 0.033       | 0.066       | 0.066       |
| ANTHRACENE                               | 0.031                       | 0.07        | 0.18        | 0.22        | 0.091       | 0.08         | 0.041        | 0.046       | 0.059 J     | 0.059 J     |
| BENZO(A)ANTHRACENE                       | 0.22                        | 0.3         | 0.47        | 0.51        | 0.39        | 0.42         | 0.26         | 0.47        | 0.84        | 0.84        |
| BENZO(A)PYRENE                           | 0.16                        | 0.27        | 0.36        | 0.39        | 0.31        | 0.3          | 0.27         | 0.57        | 0.8         | 0.8         |
| BENZO(B)FLUORANTHENE                     | 0.065 J                     | 0.13 J      | 0.34        | 0.36        | 0.21        | 0.18         | 0.2          | 0.18        | 0.52        | 0.52        |
| BENZO(K)FLUORANTHENE                     | 0.068                       | 0.16        | 0.3         | 0.29        | 0.2         | 0.18         | 0.17         | 0.28        | 0.29        | 0.29        |
| CHRYSENE                                 | 0.37                        | 0.5         | 0.64        | 0.65        | 0.3         | 0.42         | 0.31         | 0.64        | 1.2         | 1.2         |
| DIBENZ(A,H)ANTHRACENE                    | 0.055                       | 0.084 J     | 0.1         | 0.11        | 0.017       | 0.019        | 0.01         | 0.022       | 0.027       | 0.027       |
| FLUORANTHENE                             | 0.31                        | 0.66        | 1           | 1.1         | 0.72        | 0.48         | 0.43         | 0.016       | 0.81        | 0.81        |
| FLUORENE                                 | 0.041                       | 0.17        | 0.15        | 0.17        | 0.034       | 0.027        | 0.022        | 0.03        | 0.1         | 0.1         |
| INDENO(1,2,3-C,D)PYRENE                  | 0.077                       | 0.11        | 0.21        | 0.21        | 0.042       | 0.04         | 0.029        | 0.035       | 0.055       | 0.055       |
| NAPHTHALENE                              | 0.013                       | 0.026       | 0.035       | 0.047       | 0.016       | 0.013        | 0.01         | 0.018       | 0.061 J     | 0.061 J     |
| PHENANTHRENE                             | 0.26                        | 0.49        | 0.76        | 0.73        | 0.23        | 0.12         | 0.11         | 0.081 J     | 0.46        | 0.46        |
| PYRENE                                   | 0.31                        | 0.54        | 0.76        | 0.84        | 0.38        | 0.21         | 0.22         | 0.42        | 0.61        | 0.61        |
| PAHs (total)                             | 2.1 J                       | 3.9 J       | 5.7         | 6.1         | 3 J         | 2.6 J        | 2.1 J        | 2.9 J       | 6 J         | 6 J         |

## Summary of Results for Reach 2 Sediment Samples

T-58

Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Analyte                                  | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R2-014-V-Z5 |  | R2-014-VR |  | R2-014-V-Z6 |  | R2-014-V-Z7 |  | R2-015-V-Z1a |  | R2-015-V-Z1b |  | R2-015-V-Z2 |  | R2-015-V-Z3 |  | R2-015-V-Z4 |  |
|------------------------------------------|-----------|--|-------------|--|-----------------------------|--|-------------|--|-----------|--|-------------|--|-------------|--|--------------|--|--------------|--|-------------|--|-------------|--|-------------|--|
|                                          | 5/25/2010 |  | 5/25/2010   |  | 4-6                         |  | 5/25/2010   |  | 5/25/2010 |  | 5/25/2010   |  | 5/25/2010   |  | 5/25/2010    |  | 5/25/2010    |  | 5/25/2010   |  | 5/25/2010   |  | 5/25/2010   |  |
|                                          | 4-6       |  | 4-6         |  | 4-6                         |  | 4-6         |  | 4-6       |  | 6-8         |  | 8-10        |  | 0-0.5        |  | 0.5-1        |  | 1-2         |  | 2-3         |  | 3-4         |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |  |             |  |                             |  |             |  |           |  |             |  |             |  |              |  |              |  |             |  |             |  |             |  |
| 2-METHYLNAPHTHALENE                      |           |  |             |  | 0.17 J                      |  | 0.022 J     |  | 0.087 U   |  | 0.065 J     |  | 0.0017 U    |  | 0.0084 J     |  | 0.0077 J     |  | 0.053       |  | 0.03        |  | 0.03        |  |
| ACENAPHTHENE                             |           |  |             |  | 0.055 J                     |  | 0.0058 U    |  | 0.036     |  | 0.053       |  | 0.0017 U    |  | 0.013        |  | 0.012        |  | 0.052       |  | 0.036       |  | 0.036       |  |
| ACENAPHTHYLENE                           |           |  |             |  | 0.081 J                     |  | 0.024 J     |  | 0.082     |  | 0.043       |  | 0.021       |  | 0.031        |  | 0.027        |  | 0.055       |  | 0.058       |  | 0.058       |  |
| ANTHRACENE                               |           |  |             |  | 0.19 J                      |  | 0.032 J     |  | 0.17 J    |  | 0.3         |  | 0.03        |  | 0.05         |  | 0.044        |  | 0.06        |  | 0.053       |  | 0.053       |  |
| BENZO(A)ANTHRACENE                       |           |  |             |  | 0.66 J                      |  | 0.12 J      |  | 0.39      |  | 0.74        |  | 0.15        |  | 0.24         |  | 0.31         |  | 0.81        |  | 0.38        |  | 0.38        |  |
| BENZO(A)PYRENE                           |           |  |             |  | 0.6 J                       |  | 0.11 J      |  | 0.31      |  | 0.7         |  | 0.13        |  | 0.22         |  | 0.27         |  | 0.74        |  | 0.4         |  | 0.4         |  |
| BENZO(B)FLUORANTHENE                     |           |  |             |  | 0.58 J                      |  | 0.068 J     |  | 0.23      |  | 0.33        |  | 0.15        |  | 0.22         |  | 0.23         |  | 0.39        |  | 0.31        |  | 0.31        |  |
| BENZO(K)FLUORANTHENE                     |           |  |             |  | 0.29 J                      |  | 0.064 J     |  | 0.25      |  | 0.41        |  | 0.1         |  | 0.12         |  | 0.17         |  | 0.21        |  | 0.13        |  | 0.13        |  |
| CHRYSENE                                 |           |  |             |  | 0.9 J                       |  | 0.12 J      |  | 0.48      |  | 0.85        |  | 0.21        |  | 0.32         |  | 0.39         |  | 1.1         |  | 0.62        |  | 0.62        |  |
| DIBENZ(A,H)ANTHRACENE                    |           |  |             |  | 0.029 J                     |  | 0.0058 U    |  | 0.025     |  | 0.045       |  | 0.047       |  | 0.077        |  | 0.08         |  | 0.2         |  | 0.12        |  | 0.12        |  |
| FLUORANTHENE                             |           |  |             |  | 1.2 J                       |  | 0.15 J      |  | 0.95      |  | 1.3         |  | 0.32        |  | 0.47         |  | 0.48         |  | 0.73        |  | 0.58        |  | 0.58        |  |
| FLUORENE                                 |           |  |             |  | 0.15 J                      |  | 0.012 J     |  | 0.078     |  | 0.068 U     |  | 0.013       |  | 0.02         |  | 0.021        |  | 0.2         |  | 0.079       |  | 0.079       |  |
| INDENO(1,2,3-C,D)PYRENE                  |           |  |             |  | 0.067 J                     |  | 0.023 J     |  | 0.051     |  | 0.068 U     |  | 0.1         |  | 0.14         |  | 0.15         |  | 0.25        |  | 0.17        |  | 0.17        |  |
| NAPHTHALENE                              |           |  |             |  | 0.044 J                     |  | 0.015 J     |  | 0.023     |  | 0.033       |  | 0.0017 U    |  | 0.0017 U     |  | 0.0017 U     |  | 0.026       |  | 0.019       |  | 0.019       |  |
| PHENANTHRENE                             |           |  |             |  | 0.62 J                      |  | 0.056 J     |  | 0.4 J     |  | 0.62 J      |  | 0.12        |  | 0.2          |  | 0.22         |  | 0.71        |  | 0.49        |  | 0.49        |  |
| PYRENE                                   |           |  |             |  | 0.62 J                      |  | 0.083 J     |  | 0.41      |  | 0.7         |  | 0.28        |  | 0.42         |  | 0.5          |  | 1           |  | 0.67        |  | 0.67        |  |
| PAHs (total)                             |           |  |             |  | 6.2 J                       |  | 0.92 J      |  | 3.9 J     |  | 6.3 J       |  | 1.8         |  | 2.7 J        |  | 3.1 J        |  | 7.2         |  | 4.5         |  | 4.5         |  |

Table 4-1

Summary of Results for Reach 2 Sediment Samples

| Analyte                  | Sample ID   |                             | R2-015-V-Z5 |     | R2-015-V-Z6 |     | R2-015-V-Z7a |       | R2-015-V-Z7b |       |
|--------------------------|-------------|-----------------------------|-------------|-----|-------------|-----|--------------|-------|--------------|-------|
|                          | Sample Date | Sample Depth Range (ft BGS) | 5/25/2010   | 4-6 | 5/25/2010   | 6-8 | 5/25/2010    | 8 - 9 | 5/25/2010    | 9-9.5 |
|                          |             |                             |             |     |             |     |              |       |              |       |
| Metals by C200.7 (mg/kg) |             |                             |             |     |             |     |              |       |              |       |
| ALUMINUM                 |             |                             | 15700 J     |     | 14700 J     |     | 13200        |       | 13400        |       |
| ANTIMONY                 |             |                             | 2.4 J       |     | 0.32 UJ     |     | 0.24 UJ      |       | 0.18 UJ      |       |
| ARSENIC                  |             |                             | 12.1 J      |     | 10.2 J      |     | 5.7          |       | 1.6          |       |
| BARIUM                   |             |                             | 358 J       |     | 311 J       |     | 206 J        |       | 150 J        |       |
| BERYLLIUM                |             |                             | 0.45 J      |     | 0.58 J      |     | 0.58 J       |       | 0.67 J       |       |
| CADMIUM                  |             |                             | 9 J         |     | 4 J         |     | 1 J          |       | 0.0068 UJ    |       |
| CALCIUM                  |             |                             | 10800 J     |     | 9350 J      |     | 7640         |       | 1680         |       |
| CHROMIUM                 |             |                             | 469 J       |     | 270 J       |     | 37.7         |       | 16.6         |       |
| COBALT                   |             |                             | 16.4 J      |     | 12.9 J      |     | 11 J         |       | 12.4 J       |       |
| COPPER                   |             |                             | 2010 J      |     | 676 J       |     | 157          |       | 11.3         |       |
| IRON                     |             |                             | 24100 J     |     | 21600 J     |     | 20100        |       | 19600        |       |
| LEAD                     |             |                             | 2520 J      |     | 469 J       |     | 135 J        |       | 5.5 J        |       |
| MAGNESIUM                |             |                             | 6650 J      |     | 6590 J      |     | 6790         |       | 5180         |       |
| MANGANESE                |             |                             | 299 J       |     | 347 J       |     | 449          |       | 819          |       |
| NICKEL                   |             |                             | 220 J       |     | 70.2 J      |     | 31.6         |       | 23.6         |       |
| POTASSIUM                |             |                             | 1890 J      |     | 1790 J      |     | 1620         |       | 1040         |       |
| SELENIUM                 |             |                             | 2.1 J       |     | 1.4 J       |     | 0.9 J        |       | 0.45 U       |       |
| SILVER                   |             |                             | 7.1 J       |     | 2.8 J       |     | 0.054 UJ     |       | 0.041 UJ     |       |
| SODIUM                   |             |                             | 114 J       |     | 85.6 J      |     | 64.5 J       |       | 37.6 J       |       |
| THALLIUM                 |             |                             | 0.42 J      |     | 0.64 J      |     | 0.21 U       |       | 0.16 U       |       |
| VANADIUM                 |             |                             | 36.2 J      |     | 25.3 J      |     | 21.5         |       | 20.1         |       |
| ZINC                     |             |                             | 3140 J      |     | 2230 J      |     | 515          |       | 61.7         |       |
| Mercury by CV (mg/kg)    |             |                             |             |     |             |     |              |       |              |       |
| MERCURY                  |             |                             | 4 J         |     | 2.8 J       |     | 2 J          |       | 0.13 J       |       |
| PCBS by MC ARO (mg/kg)   |             |                             |             |     |             |     |              |       |              |       |
| PCB-1016 (AROCOR 1016)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1221 (AROCOR 1221)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1232 (AROCOR 1232)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1242 (AROCOR 1242)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1248 (AROCOR 1248)   |             |                             | 0.36        |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1254 (AROCOR 1254)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1260 (AROCOR 1260)   |             |                             | 0.096 J     |     | 0.031 J     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1262 (AROCOR 1262)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCB-1268 (AROCOR 1268)   |             |                             | 0.011 U     |     | 0.011 U     |     | 0.011 U      |       | 0.011 U      |       |
| PCBs (total)             |             |                             | 0.46 J      |     | 0.031 J     |     | 0.011 U      |       | 0.011 U      |       |

Key at the end of Table

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Table 4-1  
Summary of Results for Reach 2 Sediment Samples

| Analyte                                  | Sample ID                   | R2-015-V-Z5 | R2-015-V-Z6 | R2-015-V-Z7a | R2-015-V-Z7b |
|------------------------------------------|-----------------------------|-------------|-------------|--------------|--------------|
|                                          | Sample Date                 | 5/25/2010   | 5/25/2010   | 5/25/2010    | 5/25/2010    |
|                                          | Sample Depth Range (ft BGS) | 4-6         | 6-8         | 8 - 9        | 9-9.5        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |             |             |              |              |
| 2-METHYLNAPHTHALENE                      |                             | 0.1         | 0.082       | 0.018        | 0.0017 U     |
| ACENAPHTHENE                             |                             | 0.084 J     | 0.056       | 0.015        | 0.0017 U     |
| ACENAPHTHYLENE                           |                             | 0.13        | 0.091       | 0.04         | 0.0017 U     |
| ANTHRACENE                               |                             | 0.22        | 0.2         | 0.1          | 0.0017 U     |
| BENZO(A)ANTHRACENE                       |                             | 0.54        | 0.38        | 0.22         | 0.0017 U     |
| BENZO(A)PYRENE                           |                             | 0.42        | 0.32        | 0.13         | 0.0017 U     |
| BENZO(B)FLUORANTHENE                     |                             | 0.48        | 0.24        | 0.098        | 0.0017 U     |
| BENZO(K)FLUORANTHENE                     |                             | 0.36        | 0.25        | 0.042 J      | 0.0017 U     |
| CHRYSENE                                 |                             | 0.72        | 0.49        | 0.25         | 0.0017 U     |
| DIBENZ(A,H)ANTHRACENE                    |                             | 0.14        | 0.11        | 0.017 J      | 0.0017 U     |
| FLUORANTHENE                             |                             | 1.5         | 0.67        | 0.33         | 0.0017 U     |
| FLUORENE                                 |                             | 0.21        | 0.17        | 0.028        | 0.0017 U     |
| INDENO(1,2,3-C,D)PYRENE                  |                             | 0.24        | 0.19        | 0.04 J       | 0.0017 U     |
| NAPHTHALENE                              |                             | 0.041       | 0.026       | 0.011        | 0.0017 U     |
| PHENANTHRENE                             |                             | 0.88        | 0.57        | 0.22         | 0.0017 U     |
| PYRENE                                   |                             | 1.1         | 0.59        | 0.38         | 0.0017 U     |
| PAHs (total)                             |                             | 7.4 J       | 4.6         | 2 J          | 0.0017 U     |

Key:

BGS = Below ground surface (in this case below top of sediment surface).

ft = Feet.

J = Estimated at the concentration listed.

mg/kg = Milligrams per kilogram.

-P = Ponar creek location/sample.

PCB = Polychlorinated biphenyl.

SVOA = Semivolatile organic compounds analysis.

U = Non-detect.

UJ = Non-detect/estimated.

UR = Non-detect/rejected.

-V = Vibracore creek location/sample.

-VR = Vibracore creek duplicate sample.

-Z = Sample depth interval consecutively numbered.



Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                  | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R3-016-V-Z1a |  | R3-016-V-Z1b |  | R3-016-V-Z2 |  | R3-016-V-Z3 |  | R3-016-V-Z4 |  | R3-016-VR |  | R3-016-V-Z5 |  | R3-016-V-Z6 |  | R3-016-V-Z7 |  |
|--------------------------|-----------|--|-------------|--|-----------------------------|--|--------------|--|--------------|--|-------------|--|-------------|--|-------------|--|-----------|--|-------------|--|-------------|--|-------------|--|
|                          | 5/26/2010 |  | 5/26/2010   |  | 0-0.5                       |  | 0.5-1        |  | 1-2          |  | 5/26/2010   |  | 5/26/2010   |  | 5/26/2010   |  | 5/26/2010 |  | 5/26/2010   |  | 5/26/2010   |  | 5/26/2010   |  |
|                          | Sample    |  | Date        |  | Range                       |  | Depth        |  | Depth        |  | Depth       |  | Depth       |  | Depth       |  | Depth     |  | Depth       |  | Depth       |  | Depth       |  |
| Metals by C200.7 (mg/kg) |           |  |             |  |                             |  |              |  |              |  |             |  |             |  |             |  |           |  |             |  |             |  |             |  |
| ALUMINUM                 | 16300 J   |  | 16900 J     |  | 16900 J                     |  | 16900 J      |  | 16900 J      |  | 15200 J     |  | 15700 J     |  | 16300 J     |  | 15900 J   |  | 15200 J     |  | 12600 J     |  | 12600 J     |  |
| ANTIMONY                 | 1.4 UR    |  | 1.3 UJ      |  | 1.3 UJ                      |  | 1.3 UJ       |  | 1.2 UJ       |  | 1.1 UJ      |  | 1 UJ        |  | 3.1 J       |  | 0.99 UJ   |  | 0.78 UJ     |  | 0.48        |  | 0.48        |  |
| ARSENIC                  | 14.5 J    |  | 17.1 J      |  | 17.1 J                      |  | 17.1 J       |  | 14.7 J       |  | 11.4 J      |  | 13.7 J      |  | 11.1 J      |  | 14.1 J    |  | 9.6 J       |  | 2.1         |  | 2.1         |  |
| BARIUM                   | 276 J-    |  | 338 J-      |  | 338 J-                      |  | 338 J-       |  | 336 J-       |  | 314 J-      |  | 349 J-      |  | 346 J       |  | 366 J-    |  | 294 J-      |  | 125         |  | 125         |  |
| BERYLLIUM                | 0.35 J    |  | 0.35 J      |  | 0.35 J                      |  | 0.31 J       |  | 0.31 J       |  | 0.11 UJ     |  | 0.48 J      |  | 0.031 UJ    |  | 0.41 J    |  | 0.48 J      |  | 0.49        |  | 0.49        |  |
| CADMIUM                  | 13.6 J    |  | 23.7 J      |  | 23.7 J                      |  | 14.5 J       |  | 14.5 J       |  | 8.9 J       |  | 9.5 J       |  | 8.4 J       |  | 5.2 J     |  | 1.9 J       |  | 0.025       |  | 0.025       |  |
| CALCIUM                  | 14100 J   |  | 16500 J     |  | 16500 J                     |  | 12400 J      |  | 10300 J      |  | 10500 J     |  | 10400 J     |  | 10500 J     |  | 13300 J   |  | 1840        |  | 1840        |  | 1840        |  |
| CHROMIUM                 | 1290 J    |  | 1940 J      |  | 1940 J                      |  | 1040 J       |  | 441 J        |  | 512 J       |  | 549 J       |  | 379 J       |  | 66.4 J    |  | 11.9        |  | 11.9        |  | 11.9        |  |
| COBALT                   | 24.2 J    |  | 16.3 J      |  | 16.3 J                      |  | 21.4 J       |  | 16.5 J       |  | 15.6 J      |  | 14.7 J      |  | 13.3 J      |  | 11.8 J    |  | 10.1        |  | 10.1        |  | 10.1        |  |
| COPPER                   | 1290 J    |  | 2320 J      |  | 2320 J                      |  | 2160 J       |  | 2470 J       |  | 1310 J      |  | 1330 J      |  | 1020 J      |  | 288 J     |  | 7.1         |  | 7.1         |  | 7.1         |  |
| IRON                     | 24200 J   |  | 22500 J     |  | 22500 J                     |  | 23800 J      |  | 22400 J      |  | 23100 J     |  | 24200 J     |  | 21900 J     |  | 22200 J   |  | 18200       |  | 18200       |  | 18200       |  |
| LEAD                     | 2270 J    |  | 4650 J      |  | 4650 J                      |  | 4430 J       |  | 3880 J       |  | 1600 J      |  | 1600 J      |  | 619 J       |  | 304 J     |  | 5020        |  | 5020        |  | 5020        |  |
| MAGNESIUM                | 6450 J    |  | 6310 J      |  | 6310 J                      |  | 6230 J       |  | 6360 J       |  | 6620 J      |  | 6730 J      |  | 6470 J      |  | 8210 J    |  | 1070        |  | 1070        |  | 1070        |  |
| MANGANESE                | 358 J     |  | 305 J       |  | 305 J                       |  | 306 J        |  | 249 J        |  | 295 J       |  | 305 J       |  | 298 J       |  | 393 J     |  | 42.7 J      |  | 42.7 J      |  | 42.7 J      |  |
| NICKEL                   | 486 J     |  | 329 J       |  | 329 J                       |  | 347 J        |  | 240 J        |  | 173 J       |  | 176 J       |  | 79.2 J      |  | 24        |  | 1450        |  | 1450        |  | 1450        |  |
| POTASSIUM                | 2040 J    |  | 1950 J      |  | 1950 J                      |  | 1960 J       |  | 1870 J       |  | 2090 J      |  | 2220 J      |  | 2080 J      |  | 2030 J    |  | 69          |  | 69          |  | 69          |  |
| SELENIUM                 | 1.2 UR    |  | 1.8 J       |  | 1.8 J                       |  | 1.1 UJ       |  | 0.94 UJ      |  | 0.89 UJ     |  | 2.5 J       |  | 0.87 UJ     |  | 0.68 UJ   |  | 0.42        |  | 0.42        |  | 0.42        |  |
| SILVER                   | 2.3 J     |  | 4.3 J       |  | 4.3 J                       |  | 4 J          |  | 5.9 J        |  | 4.7 J       |  | 5.5 J       |  | 1.8 J       |  | 0.82 U    |  | 0.51        |  | 0.51        |  | 0.51        |  |
| SODIUM                   | 10.4 UJ   |  | 9.6 UJ      |  | 9.6 UJ                      |  | 9.1 UJ       |  | 8 UJ         |  | 7.6 UJ      |  | 132 J       |  | 7.4 UJ      |  | 5.8 UJ    |  | 3.6         |  | 3.6         |  | 3.6         |  |
| THALLIUM                 | 1.1 UR    |  | 0.99 U      |  | 0.99 U                      |  | 0.95 U       |  | 0.83 U       |  | 0.78 U      |  | 0.74 J      |  | 0.76 U      |  | 0.6 U     |  | 0.37        |  | 0.37        |  | 0.37        |  |
| VANADIUM                 | 72.9 J    |  | 73.4 J      |  | 73.4 J                      |  | 58.6 J       |  | 39 J         |  | 30.8 J      |  | 33.7 J      |  | 25.6 J      |  | 23.2 J    |  | 19.3        |  | 19.3        |  | 19.3        |  |
| ZINC                     | 9350 J    |  | 16700 J     |  | 16700 J                     |  | 12500 J      |  | 3000 J       |  | 3050 J      |  | 2960 J      |  | 3240 J      |  | 976 J     |  | 69          |  | 69          |  | 69          |  |
| Mercury by CV (mg/kg)    |           |  |             |  |                             |  |              |  |              |  |             |  |             |  |             |  |           |  |             |  |             |  |             |  |
| MERCURY                  | 1.5 J     |  | 2 J         |  | 2 J                         |  | 2.1 J        |  | 3.1 J        |  | 3.4 J       |  | 3.3 J       |  | 0.1 U       |  | 0.08 U    |  | 0.049       |  | 0.049       |  | 0.049       |  |
| PCBS by MC ARO (mg/kg)   |           |  |             |  |                             |  |              |  |              |  |             |  |             |  |             |  |           |  |             |  |             |  |             |  |
| PCB-1016 (AROCOR 1016)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1221 (AROCOR 1221)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1232 (AROCOR 1232)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1242 (AROCOR 1242)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1248 (AROCOR 1248)   | 6.7 J     |  | 9.5 J       |  | 9.5 J                       |  | 5.8 J        |  | 2.5          |  | 0.24 J      |  | 0.19 J      |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1254 (AROCOR 1254)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1260 (AROCOR 1260)   | 0.011 U   |  | 0.5 J       |  | 0.5 J                       |  | 0.011 U      |  | 0.011 U      |  | 0.12 J      |  | 0.065 J     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1262 (AROCOR 1262)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCB-1268 (AROCOR 1268)   | 0.011 U   |  | 0.011 U     |  | 0.011 U                     |  | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U     |  | 0.011 UJ    |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |
| PCBs (total)             | 6.7 J     |  | 10 J        |  | 10 J                        |  | 5.8 J        |  | 2.5          |  | 0.36 J      |  | 0.35 J      |  | 0.065 J     |  | 0.011 U   |  | 0.011       |  | 0.011       |  | 0.011       |  |

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                                  | Sample ID    |              | Sample Date |           |             |           |             |           |           |           |             |           |             |           |             |           | Sample Depth Range (ft BGS) |  |
|------------------------------------------|--------------|--------------|-------------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-----------------------------|--|
|                                          | R3-016-V-Z1a | R3-016-V-Z1b | R3-016-V-Z2 |           | R3-016-V-Z3 |           | R3-016-V-Z4 |           | R3-016-VR |           | R3-016-V-Z5 |           | R3-016-V-Z6 |           | R3-016-V-Z7 |           |                             |  |
|                                          | 5/26/2010    | 5/26/2010    | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 |                             |  |
|                                          | 0-0.5        | 0.5-1        | 1-2         | 2-3       | 3-4         | 3-4       | 3-4         | 3-4       | 3-4       | 3-4       | 4-6         | 4-6       | 6-8         | 6-8       | 8-9         | 8-9       |                             |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |              |              |             |           |             |           |             |           |           |           |             |           |             |           |             |           |                             |  |
| 2-METHYLNAPHTHALENE                      | 0.055        | 0.0017 U     | 0.085       | 0.08      | 0.11        | 0.09      | 0.31        | 0.06      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| ACENAPHTHENE                             | 0.041        | 0.067        | 0.058       | 0.077     | 0.11        | 0.075     | 0.22        | 0.094     | 0.0017    |           |             |           |             |           |             |           |                             |  |
| ACENAPHTHYLENE                           | 0.068        | 0.086        | 0.0017 U    | 0.29      | 0.2         | 0.17      | 0.36        | 0.078     | 0.0017    |           |             |           |             |           |             |           |                             |  |
| ANTHRACENE                               | 0.11         | 0.21         | 0.19        | 0.34      | 0.37        | 0.32      | 0.82        | 0.34      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| BENZO(A)ANTHRACENE                       | 0.67         | 1.5          | 0.45        | 0.77      | 1.1 J       | 0.67      | 1.1         | 0.59 J    | 0.0017    |           |             |           |             |           |             |           |                             |  |
| BENZO(A)PYRENE                           | 0.78         | 0.052 U      | 0.56        | 0.6       | 0.75        | 0.55      | 1.7 J       | 0.48      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| BENZO(B)FLUORANTHENE                     | 0.4          | 0.79         | 0.35        | 0.67      | 0.6         | 0.49      | 0.74        | 0.22      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| BENZO(K)FLUORANTHENE                     | 0.31         | 0.47         | 0.27        | 0.34      | 0.46        | 0.49      | 0.74        | 0.3       | 0.0017    |           |             |           |             |           |             |           |                             |  |
| CHRYSENE                                 | 1.1          | 2.7          | 0.71        | 1.5       | 1.3         | 1.3       | 2.5         | 1 J       | 0.0051    |           |             |           |             |           |             |           |                             |  |
| DIBENZ(A,H)ANTHRACENE                    | 0.24         | 0.37         | 0.2         | 0.19      | 0.25        | 0.2       | 0.35        | 0.14      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| FLUORANTHENE                             | 0.81         | 1            | 0.94 J      | 0.74 J    | 1.7 J       | 1.3 J     | 1.6 J       | 3.7 J     | 0.0017    |           |             |           |             |           |             |           |                             |  |
| FLUORENE                                 | 0.23         | 0.36         | 0.21        | 0.31      | 0.33        | 0.29      | 0.61        | 0.13      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| INDENO(1,2,3-C,D)PYRENE                  | 0.26         | 0.42         | 0.22        | 0.32      | 0.39        | 0.31      | 0.51        | 0.19      | 0.0017    |           |             |           |             |           |             |           |                             |  |
| NAPHTHALENE                              | 0.03         | 0.045        | 0.039       | 0.045     | 0.067       | 0.061     | 0.082       | 0.034     | 0.0017    |           |             |           |             |           |             |           |                             |  |
| PHENANTHRENE                             | 0.54         | 0.88         | 0.73        | 1.5 J     | 1.8 J       | 1.6 J     | 3.8 J       | 1 J       | 0.0017    |           |             |           |             |           |             |           |                             |  |
| PYRENE                                   | 0.87         | 2.4          | 0.65        | 2         | 3.1         | 2.6       | 3.8         | 3.6 J     | 0.0051    |           |             |           |             |           |             |           |                             |  |
| PAHs (total)                             | 7.1          | 12           | 6.1 J       | 10 J      | 13 J        | 11 J      | 20 J        | 12 J      | 0.01      |           |             |           |             |           |             |           |                             |  |

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                  | Sample ID V-Z7              |  |  |  |  |                             |  |  |  |          | Sample ID V-Z6              |  |  |          |  |                             |  |          |  |  |         |  |  |         |  |  |         |  |  |         |
|--------------------------|-----------------------------|--|--|--|--|-----------------------------|--|--|--|----------|-----------------------------|--|--|----------|--|-----------------------------|--|----------|--|--|---------|--|--|---------|--|--|---------|--|--|---------|
|                          | Sample Date 1/10            |  |  |  |  | Sample Date 1/10            |  |  |  |          | Sample Date 1/10            |  |  |          |  | Sample Date 1/10            |  |          |  |  |         |  |  |         |  |  |         |  |  |         |
|                          | Sample Depth Range (ft BGS) |  |  |  |  | Sample Depth Range (ft BGS) |  |  |  |          | Sample Depth Range (ft BGS) |  |  |          |  | Sample Depth Range (ft BGS) |  |          |  |  |         |  |  |         |  |  |         |  |  |         |
| Metals by C200.7 (mg/kg) |                             |  |  |  |  |                             |  |  |  |          |                             |  |  |          |  |                             |  |          |  |  |         |  |  |         |  |  |         |  |  |         |
| ALUMINUM                 |                             |  |  |  |  | 12000 J                     |  |  |  | 14400 J  |                             |  |  | 10900 J  |  |                             |  | 13100 J  |  |  | 16900 J |  |  | 16200 J |  |  | 16300 J |  |  | 14800 J |
| ANTIMONY                 | UJ                          |  |  |  |  | 0.37 UJ                     |  |  |  | 0.37 UJ  |                             |  |  | 1.1 J    |  |                             |  | 10 J     |  |  | 23.5 J  |  |  | 8.1 J   |  |  | 8.2 J   |  |  | 1.5 J   |
| ARSENIC                  |                             |  |  |  |  | 4.3 J                       |  |  |  | 5.2 J    |                             |  |  | 4.4 J    |  |                             |  | 7.8 J    |  |  | 14.9 J  |  |  | 15.3 J  |  |  | 15.6 J  |  |  | 10.9 J  |
| BARIUM                   | J-                          |  |  |  |  | 130 J                       |  |  |  | 159 J    |                             |  |  | 126 J    |  |                             |  | 240 J    |  |  | 313 J   |  |  | 324 J   |  |  | 319 J   |  |  | 283 J   |
| BERYLLIUM                | J                           |  |  |  |  | 0.46 J                      |  |  |  | 0.57 J   |                             |  |  | 0.44 J   |  |                             |  | 0.46 J   |  |  | 0.5 J   |  |  | 0.44 J  |  |  | 0.47 J  |  |  | 0.2 J   |
| CADMIUM                  | U                           |  |  |  |  | 2.5 J                       |  |  |  | 2.9 J    |                             |  |  | 2.9 J    |  |                             |  | 9.7 J    |  |  | 27.9 J  |  |  | 13.5 J  |  |  | 15.1 J  |  |  | 6 J     |
| CALCIUM                  |                             |  |  |  |  | 29300 J                     |  |  |  | 16400 J  |                             |  |  | 12800 J  |  |                             |  | 12400 J  |  |  | 17200 J |  |  | 11700 J |  |  | 11800 J |  |  | 11100 J |
| CHROMIUM                 |                             |  |  |  |  | 85.9 J                      |  |  |  | 92 J     |                             |  |  | 110 J    |  |                             |  | 693 J    |  |  | 2090 J  |  |  | 1000 J  |  |  | 1100 J  |  |  | 224 J   |
| COBALT                   | J                           |  |  |  |  | 12.2 J                      |  |  |  | 13.4 J   |                             |  |  | 13.1 J   |  |                             |  | 24.3 J   |  |  | 16.9 J  |  |  | 22.3 J  |  |  | 19.9 J  |  |  | 14 J    |
| COPPER                   |                             |  |  |  |  | 172 J                       |  |  |  | 212 J    |                             |  |  | 214 J    |  |                             |  | 777 J    |  |  | 2470 J  |  |  | 2480 J  |  |  | 2540 J  |  |  | 1540 J  |
| IRON                     |                             |  |  |  |  | 18100 J                     |  |  |  | 21400 J  |                             |  |  | 17700 J  |  |                             |  | 22700 J  |  |  | 25000 J |  |  | 24800 J |  |  | 23500 J |  |  | 23200 J |
| LEAD                     | J                           |  |  |  |  | 260 J                       |  |  |  | 299 J    |                             |  |  | 340 J    |  |                             |  | 1390 J   |  |  | 5500 J  |  |  | 5230 J  |  |  | 5280 J  |  |  | 1820 J  |
| MAGNESIUM                |                             |  |  |  |  | 6200 J                      |  |  |  | 6790 J   |                             |  |  | 5900 J   |  |                             |  | 5800 J   |  |  | 6160 J  |  |  | 5640 J  |  |  | 5860 J  |  |  | 7660 J  |
| MANGANESE                | J                           |  |  |  |  | 563 J                       |  |  |  | 666 J    |                             |  |  | 595 J    |  |                             |  | 367 J    |  |  | 290 J   |  |  | 297 J   |  |  | 278 J   |  |  | 304 J   |
| NICKEL                   |                             |  |  |  |  | 59.1 J                      |  |  |  | 61.1 J   |                             |  |  | 73.4 J   |  |                             |  | 431 J    |  |  | 322 J   |  |  | 365 J   |  |  | 304 J   |  |  | 137 J   |
| POTASSIUM                |                             |  |  |  |  | 1650 J                      |  |  |  | 1940 J   |                             |  |  | 1550 J   |  |                             |  | 1700 J   |  |  | 1890 J  |  |  | 1720 J  |  |  | 1780 J  |  |  | 1810 J  |
| SELENIUM                 | UJ                          |  |  |  |  | 0.93 U                      |  |  |  | 0.94 U   |                             |  |  | 0.87 U   |  |                             |  | 1.1 J    |  |  | 2.1 J   |  |  | 1.7 J   |  |  | 2.4 J   |  |  | 0.88 U  |
| SILVER                   | U                           |  |  |  |  | 0.084 UJ                    |  |  |  | 0.084 UJ |                             |  |  | 0.078 UJ |  |                             |  | 0.088 UJ |  |  | 5.5 J   |  |  | 5.7 J   |  |  | 5.7 J   |  |  | 4.9 J   |
| SODIUM                   | UJ                          |  |  |  |  | 8.6 UJ                      |  |  |  | 8.7 UJ   |                             |  |  | 8 UJ     |  |                             |  | 9.1 UJ   |  |  | 11.7 UJ |  |  | 10.4 UJ |  |  | 11 UJ   |  |  | 8.1 UJ  |
| THALLIUM                 | U                           |  |  |  |  | 0.32 U                      |  |  |  | 0.32 U   |                             |  |  | 0.3 U    |  |                             |  | 0.34 U   |  |  | 0.43 UR |  |  | 0.39 U  |  |  | 0.41 U  |  |  | 0.3 U   |
| VANADIUM                 |                             |  |  |  |  | 19 J                        |  |  |  | 22.4 J   |                             |  |  | 18.7 J   |  |                             |  | 46.7 J   |  |  | 75.3 J  |  |  | 59.5 J  |  |  | 67.9 J  |  |  | 33.8 J  |
| ZINC                     |                             |  |  |  |  | 821 J                       |  |  |  | 984 J    |                             |  |  | 1130 J   |  |                             |  | 6170 J   |  |  | 15900 J |  |  | 9330 J  |  |  | 11500 J |  |  | 1620 J  |
| Mercury by CV (mg/kg)    |                             |  |  |  |  |                             |  |  |  |          |                             |  |  |          |  |                             |  |          |  |  |         |  |  |         |  |  |         |  |  |         |
| MERCURY                  | U                           |  |  |  |  | 1.2 J                       |  |  |  | 1.5 J    |                             |  |  | 0.87 J   |  |                             |  | 1.1 J    |  |  | 2.4 J   |  |  | 2.5 J   |  |  | 2.7 J   |  |  | 2.7 J   |
| PCBS by MC ARO (mg/kg)   |                             |  |  |  |  |                             |  |  |  |          |                             |  |  |          |  |                             |  |          |  |  |         |  |  |         |  |  |         |  |  |         |
| PCB-1016 (AROCOR 1016)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCB-1221 (AROCOR 1221)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 U  |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCB-1232 (AROCOR 1232)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCB-1242 (AROCOR 1242)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCB-1248 (AROCOR 1248)   | U                           |  |  |  |  | 0.11 J                      |  |  |  | 0.33 J   |                             |  |  | 0.011 UJ |  |                             |  | 4.7 J    |  |  | 10 J    |  |  | 1.5 J   |  |  | 1.2 J   |  |  | 0.059 J |
| PCB-1254 (AROCOR 1254)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCB-1260 (AROCOR 1260)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.31 J   |  |  | 0.54 J  |  |  | 0.34 J  |  |  | 0.26 J  |  |  | 0.027 J |
| PCB-1262 (AROCOR 1262)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCB-1268 (AROCOR 1268)   | U                           |  |  |  |  | 0.011 U                     |  |  |  | 0.011 U  |                             |  |  | 0.011 UJ |  |                             |  | 0.011 U  |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |  |  | 0.011 U |
| PCBs (total)             | U                           |  |  |  |  | 0.11 J                      |  |  |  | 0.33 J   |                             |  |  | 0.011 U  |  |                             |  | 5 J      |  |  | 11 J    |  |  | 1.8 J   |  |  | 1.5 J   |  |  | 0.086 J |

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                                         | Sample ID V-Z7 |                             | R3-017-V-Z1a |        | R3-017-V-Z1b |          | R3-017-V-Z2 |        | R3-017-V-Z3 |           | R3-017-V-Z4 |           | R3-017-V-Z5 |           | R3-017-V-Z6 |           |
|-------------------------------------------------|----------------|-----------------------------|--------------|--------|--------------|----------|-------------|--------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|
|                                                 | Sample Date 10 | Sample Depth Range (ft BGS) | 0-0.5        | 0.5-1  | 1-2          | 2-3      | 3-4         | 4-6    | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 | 5/26/2010   | 5/26/2010 |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |                |                             |              |        |              |          |             |        |             |           |             |           |             |           |             |           |
| 2-METHYLNAPHTHALENE                             | U              | 0.01                        | 0.0017 U     | 0.018  | 0.034        | 0.61     | 0.097       | 0.057  |             |           |             |           |             |           |             |           |
| ACENAPHTHENE                                    | U              | 0.012                       | 0.0017 U     | 0.073  | 0.033        | 0.051    | 0.033       | 0.041  |             |           |             |           |             |           |             |           |
| ACENAPHTHYLENE                                  | U              | 0.02                        | 0.008 J      | 0.036  | 0.092        | 0.074    | 0.069       | 0.081  |             |           |             |           |             |           |             |           |
| ANTHRACENE                                      | U              | 0.033                       | 0.019        | 0.28   | 0.36         | 0.28     | 0.12        | 0.22   |             |           |             |           |             |           |             |           |
| BENZO(A)ANTHRACENE                              | UJ             | 0.11                        | 0.067        | 0.41   | 0.76         | 1.1      | 0.26        | 0.43   |             |           |             |           |             |           |             |           |
| BENZO(A)PYRENE                                  | U              | 0.11                        | 0.058        | 0.29   | 0.58         | 0.96     | 0.24        | 0.3    |             |           |             |           |             |           |             |           |
| BENZO(B)FLUORANTHENE                            | U              | 0.091 J                     | 0.066        | 0.17 J | 0.45 J       | 0.41 J   | 0.23 J      | 0.18 J |             |           |             |           |             |           |             |           |
| BENZO(K)FLUORANTHENE                            | U              | 0.091                       | 0.039        | 0.18   | 0.37         | 0.32     | 0.18        | 0.19   |             |           |             |           |             |           |             |           |
| CHRYSENE                                        |                | 0.18                        | 0.072 J      | 0.51   | 0.99         | 2        | 0.44        | 0.53   |             |           |             |           |             |           |             |           |
| DIBENZ(A,H)ANTHRACENE                           | U              | 0.044                       | 0.025        | 0.08   | 0.16         | 0.2      | 0.0017 U    | 0.071  |             |           |             |           |             |           |             |           |
| FLUORANTHENE                                    | U              | 0.34                        | 0.12 J       | 0.72   | 1.4          | 0.9      | 0.62        | 0.65   |             |           |             |           |             |           |             |           |
| FLUORENE                                        | U              | 0.017                       | 0.0093       | 0.063  | 0.21         | 0.46     | 0.14        | 0.11   |             |           |             |           |             |           |             |           |
| INDENO(1,2,3-C,D)PYRENE                         | U              | 0.061                       | 0.047        | 0.12   | 0.23         | 0.23     | 0.089 J     | 0.11   |             |           |             |           |             |           |             |           |
| NAPHTHALENE                                     | U              | 0.01                        | 0.0017 U     | 0.011  | 0.021        | 0.0017 U | 0.02        | 0.026  |             |           |             |           |             |           |             |           |
| PHENANTHRENE                                    | UJ             | 0.14 J                      | 0.067        | 0.58 J | 0.98 J       | 1.3      | 0.46 J      | 0.47 J |             |           |             |           |             |           |             |           |
| PYRENE                                          |                | 0.24                        | 0.094 J      | 0.81   | 1.3          | 1.2      | 0.48        | 0.76   |             |           |             |           |             |           |             |           |
| PAHs (total)                                    |                | 1.6 J                       | 0.76 J       | 4.5 J  | 8.5 J        | 10 J     | 3.6 J       | 4.3 J  |             |           |             |           |             |           |             |           |

Table 4-2a

Summary of Results for Reach 3 Sediment Samples

| Sample ID                |          | Sample Date |          | Sample Depth Range (ft BGS) |          | R3-018-V-Z1a |          | R3-018-V-Z1b |         | R3-018-V-Z2 |         | R3-018-V-Z3 |  | R3-018-V-Z4 |  | R3-018-V-Z5 |  | R3-018-V-Z6 |  |
|--------------------------|----------|-------------|----------|-----------------------------|----------|--------------|----------|--------------|---------|-------------|---------|-------------|--|-------------|--|-------------|--|-------------|--|
| Analyte                  |          |             |          |                             |          |              |          |              |         |             |         |             |  |             |  |             |  |             |  |
| Metals by C200.7 (mg/kg) |          |             |          |                             |          |              |          |              |         |             |         |             |  |             |  |             |  |             |  |
| ALUMINUM                 | 14700 J  | 13700 J     | 13700 J  | 13800 J                     | 13700 J  | 13700 J      | 17000 J  | 17000 J      | 17200 J | 16000 J     | 14400 J |             |  |             |  |             |  |             |  |
| ANTIMONY                 | 0.98 J   | 0.47 UJ     | 0.44 UJ  | 0.53 J                      | 0.52 UJ  | 0.51 UJ      | 0.45 UJ  | 0.38 UJ      |         |             |         |             |  |             |  |             |  |             |  |
| ARSENIC                  | 10.4 J   | 4 J         | 4.6 J    | 4.9 J                       | 10.3 J   | 10.9 J       | 11.4 J   | 11.1 J       |         |             |         |             |  |             |  |             |  |             |  |
| BARIUM                   | 326 J    | 158 J       | 174 J    | 205 J                       | 349 J    | 359 J        | 338 J    | 396 J        |         |             |         |             |  |             |  |             |  |             |  |
| BERYLLIUM                | 0.63 J   | 0.038 UJ    | 0.035 UJ | 0.034 UJ                    | 0.042 UJ | 0.04 UJ      | 0.036 UJ | 0.031 UJ     |         |             |         |             |  |             |  |             |  |             |  |
| CADMIUM                  | 3.1 J    | 2 J         | 2.7 J    | 6.8 J                       | 14 J     | 22.2 J       | 9.9 J    | 8.3 J        |         |             |         |             |  |             |  |             |  |             |  |
| CALCIUM                  | 14400 J  | 15800 J     | 15700 J  | 17000 J                     | 14700 J  | 16100 J      | 10100 J  | 9330 J       |         |             |         |             |  |             |  |             |  |             |  |
| CHROMIUM                 | 63.9 J   | 105 J       | 141 J    | 324 J                       | 1630 J   | 1750 J       | 703 J    | 554 J        |         |             |         |             |  |             |  |             |  |             |  |
| COBALT                   | 11.5 J   | 12.7 J      | 13.6 J   | 20 J                        | 23 J     | 16.1 J       | 17.3 J   | 15.9 J       |         |             |         |             |  |             |  |             |  |             |  |
| COPPER                   | 354 J    | 224 J       | 273 J    | 532 J                       | 1610 J   | 2560 J       | 3170 J   | 1540 J       |         |             |         |             |  |             |  |             |  |             |  |
| IRON                     | 23400 J  | 21500 J     | 21500 J  | 22900 J                     | 26900 J  | 25300 J      | 23200 J  | 21900 J      |         |             |         |             |  |             |  |             |  |             |  |
| LEAD                     | 290 J    | 301 J       | 386 J    | 742 J                       | 2540 J   | 5790 J       | 5080 J   | 1400 J       |         |             |         |             |  |             |  |             |  |             |  |
| MAGNESIUM                | 10000 J  | 6590 J      | 6490 J   | 6530 J                      | 6800 J   | 6270 J       | 5970 J   | 6090 J       |         |             |         |             |  |             |  |             |  |             |  |
| MANGANESE                | 367 J    | 563 J       | 459 J    | 489 J                       | 321 J    | 303 J        | 278 J    | 276 J        |         |             |         |             |  |             |  |             |  |             |  |
| NICKEL                   | 44.2 J   | 54 J        | 69.8 J   | 294 J                       | 476 J    | 315 J        | 294 J    | 186 J        |         |             |         |             |  |             |  |             |  |             |  |
| POTASSIUM                | 1940 J   | 2070 J      | 1970 J   | 1830 J                      | 1940 J   | 2000 J       | 1820 J   | 1820 J       |         |             |         |             |  |             |  |             |  |             |  |
| SELENIUM                 | 0.77 U   | 1.8 J       | 1.3 J    | 2 J                         | 4.6 J    | 3.4 J        | 2.7 J    | 2.6 J        |         |             |         |             |  |             |  |             |  |             |  |
| SILVER                   | 0.069 UJ | 0.11 UJ     | 0.1 UJ   | 0.096 UJ                    | 4.8 J    | 5.6 J        | 7.9 J    | 5.7 J        |         |             |         |             |  |             |  |             |  |             |  |
| SODIUM                   | 7.1 UJ   | 11 UJ       | 10.3 UJ  | 9.9 UJ                      | 12.1 UJ  | 11.8 UJ      | 10.6 UJ  | 8.9 UJ       |         |             |         |             |  |             |  |             |  |             |  |
| THALLIUM                 | 0.26 U   | 0.41 U      | 0.38 U   | 0.37 U                      | 0.45 UJ  | 0.44 UJ      | 0.39 U   | 0.33 U       |         |             |         |             |  |             |  |             |  |             |  |
| VANADIUM                 | 24 J     | 23.2 J      | 24.4 J   | 38.4 J                      | 97.4 J   | 75.5 J       | 52.9 J   | 29.4 J       |         |             |         |             |  |             |  |             |  |             |  |
| ZINC                     | 1160 J   | 999 J       | 1380 J   | 2830 J                      | 9390 J   | 17300 J      | 5470 J   | 2850 J       |         |             |         |             |  |             |  |             |  |             |  |
| Mercury by CV (mg/kg)    |          |             |          |                             |          |              |          |              |         |             |         |             |  |             |  |             |  |             |  |
| MERCURY                  | 3.4 J    | 0.87 J      | 1 J      | 1.3 J                       | 2.5 J    | 3.8 J        | 4.6 J    | 4 J          |         |             |         |             |  |             |  |             |  |             |  |
| PCBS by MC ARO (mg/kg)   |          |             |          |                             |          |              |          |              |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1016 (AROCOR 1016)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1221 (AROCOR 1221)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1232 (AROCOR 1232)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1242 (AROCOR 1242)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1248 (AROCOR 1248)   | 0.011 U  | 0.07 J      | 0.4 J    | 0.65 J                      | 2.9 J    | 3 J          | 0.76 J   | 0.12 NJ      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1254 (AROCOR 1254)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1260 (AROCOR 1260)   | 0.011 U  | 0.011 U     | 0.16     | 0.12 NJ                     | 0.38 J   | 0.23 J       | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1262 (AROCOR 1262)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCB-1268 (AROCOR 1268)   | 0.011 U  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 UJ     | 0.011 UJ | 0.011 U      |         |             |         |             |  |             |  |             |  |             |  |
| PCBs (total)             | 0.011 U  | 0.07 J      | 0.56 J   | 0.77 J                      | 3.3 J    | 3.2 J        | 0.76 J   | 0.12 J       |         |             |         |             |  |             |  |             |  |             |  |

Key at the end of Table

Table Page 5 of 18 Pages

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Sample ID |  |             | Sample Date                 |  | Sample Depth Range (ft BGS) |  | SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |              |  |             |  |             |  |             |  |             |  |             |  |
|-----------|--|-------------|-----------------------------|--|-----------------------------|--|------------------------------------------|--|--------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|
| Sample ID |  | Sample Date | Sample Depth Range (ft BGS) |  | R3-017-V-Z7                 |  | R3-018-V-Z1a                             |  | R3-018-V-Z1b |  | R3-018-V-Z2 |  | R3-018-V-Z3 |  | R3-018-V-Z4 |  | R3-018-V-Z5 |  | R3-018-V-Z6 |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |
|           |  |             |                             |  |                             |  |                                          |  |              |  |             |  |             |  |             |  |             |  |             |  |

Table 4-2a

Summary of Results for Reach 3 Sediment Samples

| Analyte                  | Sample ID                   | R3-018-V-Z7 | R3-018-V-Z8 | R3-019-V-Z1a | R3-019-V-Z1b | R3-019-V-Z2 | R3-019-V-Z3 | R3-019-V-Z4 | R3-020-V-Z1a |
|--------------------------|-----------------------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|--------------|
|                          | Sample Date                 | 5/25/2010   | 5/25/2010   | 5/26/2010    | 5/26/2010    | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010    |
|                          | Sample Depth Range (ft BGS) | 8-10        | 10-12       | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         | 0-0.5        |
| Metals by C200.7 (mg/kg) |                             |             |             |              |              |             |             |             |              |
| ALUMINUM                 |                             | 15500 J     | 15000       | 20400 J      | 20700 J      | 18400 J     | 18500 J     | 18100 J     | 10900 J      |
| ANTIMONY                 |                             | 0.32 UJ     | 0.28 UJ     | 0.65 UJ      | 0.62 UJ      | 0.51 UJ     | 0.47 UJ     | 1.1 J       | 2.6 J        |
| ARSENIC                  |                             | 10.7 J      | 9.2         | 4.5 J        | 4.8 J        | 8.5 J       | 10.3 J      | 11.7 J      | 5.1 J        |
| BARIUM                   |                             | 346 J       | 269         | 214 J        | 252 J        | 311 J       | 359 J       | 345 J       | 166 J        |
| BERYLLIUM                |                             | 0.026 UJ    | 0.022 UJ    | 0.052 UJ     | 0.05 UJ      | 0.041 UJ    | 0.037 UJ    | 0.031 UJ    | 0.45 J       |
| CADMIUM                  |                             | 3.6 J       | 2           | 3.5 J        | 5.3 J        | 14.1 J      | 10.9 J      | 7.8 J       | 5.5 J        |
| CALCIUM                  |                             | 8340 J      | 11800       | 20000 J      | 21900 J      | 16700 J     | 10500 J     | 10100 J     | 13100 J      |
| CHROMIUM                 |                             | 193 J       | 59.6        | 184 J        | 266 J        | 923 J       | 741 J       | 554 J       | 232 J        |
| COBALT                   |                             | 11.9 J      | 12.7        | 14.1 J       | 16.3 J       | 23.6 J      | 18.2 J      | 15.9 J      | 19.1 J       |
| COPPER                   |                             | 458 J       | 255         | 332 J        | 453 J        | 1320 J      | 2110 J      | 1240 J      | 355 J        |
| IRON                     |                             | 21500 J     | 23400       | 27600 J      | 28000 J      | 26200 J     | 25600 J     | 25200 J     | 18300 J      |
| LEAD                     |                             | 443 J       | 288         | 447 J        | 613 J        | 2470 J      | 3480 J      | 942 J       | 571 J        |
| MAGNESIUM                |                             | 6250 J      | 8440        | 7920 J       | 7880 J       | 7030 J      | 6740 J      | 7100 J      | 5500 J       |
| MANGANESE                |                             | 304 J       | 371         | 383 J        | 363 J        | 355 J       | 275 J       | 292 J       | 309 J        |
| NICKEL                   |                             | 52 J        | 55.7        | 82.4 J       | 125 J        | 456 J       | 284 J       | 146 J       | 228 J        |
| POTASSIUM                |                             | 1950 J      | 1950        | 3240 J       | 3140 J       | 2530 J      | 2420 J      | 2450 J      | 1460 J       |
| SELENIUM                 |                             | 1.3 J       | 0.89 J      | 2.4 J        | 2.2 J        | 3.3 J       | 2.9 J       | 2 J         | 1.1 J        |
| SILVER                   |                             | 0.073 UJ    | 0.063 UJ    | 1.1 J        | 1.7 J        | 3.3 J       | 4.9 J       | 5.3 J       | 0.095 UJ     |
| SODIUM                   |                             | 7.5 UJ      | 6.4 UJ      | 356 J        | 313 J        | 223 J       | 187 J       | 147 J       | 9.7 UJ       |
| THALLIUM                 |                             | 0.28 U      | 0.24 U      | 0.56 UJ      | 0.54 UJ      | 0.45 UJ     | 0.41 UJ     | 1.5 J       | 0.36 U       |
| VANADIUM                 |                             | 24.8 J      | 24.8        | 31.5 J       | 36 J         | 63.8 J      | 46.5 J      | 32.2 J      | 28.5 J       |
| ZINC                     |                             | 1670 J      | 1000        | 1650 J       | 2410 J       | 9750 J      | 6860 J      | 3350 J      | 2040 J       |
| Mercury by CV (mg/kg)    |                             |             |             |              |              |             |             |             |              |
| MERCURY                  |                             | 3.2 J       | 2.7 J+      | 0.34 J       | 0.53 J       | 4.8 J       | 2.8 J       | 2.3 J       | 0.35 J       |
| PCBS by MC ARO (mg/kg)   |                             |             |             |              |              |             |             |             |              |
| PCB-1016 (AROCOR 1016)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCB-1221 (AROCOR 1221)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCB-1232 (AROCOR 1232)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCB-1242 (AROCOR 1242)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCB-1248 (AROCOR 1248)   |                             | 0.011 U     | 0.011 U     | 0.76 J       | 0.44 J       | 0.62 J      | 0.61        | 0.011 U     | 0.48 J       |
| PCB-1254 (AROCOR 1254)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCB-1260 (AROCOR 1260)   |                             | 0.015 J     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.11 J      | 0.04 J      | 0.011 U      |
| PCB-1262 (AROCOR 1262)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCB-1268 (AROCOR 1268)   |                             | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |
| PCBs (total)             |                             | 0.015 J     | 0.011 U     | 0.76 J       | 0.44 J       | 0.62 J      | 0.72 J      | 0.04 J      | 0.48 J       |

Key at the end of Table

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Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                                  | Sample ID |             | Sample Date |                             | Sample Depth Range (ft BGS) |             | R3-018-V-Z7  | R3-018-V-Z8  | R3-019-V-Z1a | R3-019-V-Z1b | R3-019-V-Z2 | R3-019-V-Z3  | R3-019-V-Z4 | R3-020-V-Z1a |
|------------------------------------------|-----------|-------------|-------------|-----------------------------|-----------------------------|-------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|
|                                          | Sample ID | Sample Date | Sample Date | Sample Depth Range (ft BGS) | R3-018-V-Z7                 | R3-018-V-Z8 | R3-019-V-Z1a | R3-019-V-Z1b | R3-019-V-Z2  | R3-019-V-Z3  | R3-019-V-Z4 | R3-020-V-Z1a |             |              |
|                                          | Sample ID | Sample Date | Sample Date | Sample Depth Range (ft BGS) | R3-018-V-Z7                 | R3-018-V-Z8 | R3-019-V-Z1a | R3-019-V-Z1b | R3-019-V-Z2  | R3-019-V-Z3  | R3-019-V-Z4 | R3-020-V-Z1a |             |              |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |             |             |                             |                             |             |              |              |              |              |             |              |             |              |
| 2-METHYLNAPHTHALENE                      | 0.043     | 0.015       | 0.0017 U    | 0.0017 U                    | 0.037                       | 0.052       | 0.09         | 0.009        |              |              |             |              |             |              |
| ACENAPHTHENE                             | 0.022     | 0.013       | 0.0017 U    | 0.0017 U                    | 0.031                       | 0.07        | 0.083        | 0.019        |              |              |             |              |             |              |
| ACENAPHTHYLENE                           | 0.014     | 0.041       | 0.0017 U    | 0.0017 U                    | 0.052                       | 0.14        | 0.15         | 0.017        |              |              |             |              |             |              |
| ANTHRACENE                               | 0.033     | 0.051       | 0.019       | 0.013 J                     | 0.065                       | 0.19        | 0.25         | 0.064        |              |              |             |              |             |              |
| BENZO(A)ANTHRACENE                       | 0.14      | 0.19        | 0.062       | 0.05                        | 0.47                        | 0.51        | 0.58         | 0.32         |              |              |             |              |             |              |
| BENZO(A)PYRENE                           | 0.084 J   | 0.14        | 0.077       | 0.056                       | 0.29 J                      | 0.28 J      | 0.3 J        | 0.25         |              |              |             |              |             |              |
| BENZO(B)FLUORANTHENE                     | 0.063     | 0.094       | 0.083       | 0.046                       | 0.21                        | 0.48        | 0.33         | 0.17         |              |              |             |              |             |              |
| BENZO(K)FLUORANTHENE                     | 0.078     | 0.083       | 0.057       | 0.025                       | 0.23                        | 0.36        | 0.37         | 0.14         |              |              |             |              |             |              |
| CHRYSENE                                 | 0.18      | 0.24        | 0.089       | 0.072                       | 0.82                        | 0.78        | 0.81         | 0.33         |              |              |             |              |             |              |
| DIBENZ(A,H)ANTHRACENE                    | 0.015     | 0.044       | 0.024       | 0.022                       | 0.058                       | 0.053       | 0.059        | 0.0086       |              |              |             |              |             |              |
| FLUORANTHENE                             | 0.2       | 0.27        | 0.12        | 0.098                       | 0.52                        | 1.6         | 0.62 J       | 0.37         |              |              |             |              |             |              |
| FLUORENE                                 | 0.022     | 0.016       | 0.0017 U    | 0.0017 U                    | 0.07                        | 0.14        | 0.21         | 0.018        |              |              |             |              |             |              |
| INDENO(1,2,3-C,D)PYRENE                  | 0.039     | 0.066       | 0.05        | 0.035                       | 0.12 J                      | 0.14 J      | 0.15 J       | 0.024        |              |              |             |              |             |              |
| NAPHTHALENE                              | 0.14      | 0.01        | 0.0017 U    | 0.0017 U                    | 0.035                       | 0.044       | 0.052        | 0.0039 U     |              |              |             |              |             |              |
| PHENANTHRENE                             | 0.13      | 0.15        | 0.048       | 0.039                       | 0.35                        | 0.74        | 0.9          | 0.15 J       |              |              |             |              |             |              |
| PYRENE                                   | 0.21      | 0.32        | 0.12        | 0.087                       | 0.65                        | 1.2         | 1.4 J        | 0.28         |              |              |             |              |             |              |
| PAHs (total)                             | 1.4 J     | 1.8         | 0.82        | 0.59 J                      | 4.2 J                       | 6.9 J       | 6.4 J        | 2.2 J        |              |              |             |              |             |              |



Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                         | Sample ID |         | Sample Date |         | Sample Depth Range (ft BGS) |          | R3-020-V-Z1b | R3-020-V-Z2 | R3-020-V-Z3 | R3-020-V-Z4 | R3-020-V-Z5 | R3-020-V-Z6 | R3-020-V-Z7 | R3-021-V-Z1a |
|---------------------------------|-----------|---------|-------------|---------|-----------------------------|----------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
|                                 | 5/26/2010 | 0.5-1   | 5/26/2010   | 1-2     | 5/26/2010                   | 2-3      | 5/26/2010    | 3-4         | 5/26/2010   | 4-6         | 5/26/2010   | 6-8         | 8-10        | 5/26/2010    |
| <b>Metals by C200.7 (mg/kg)</b> |           |         |             |         |                             |          |              |             |             |             |             |             |             |              |
| ALUMINUM                        | 10800 J   | 17500 J | 14400 J     | 16800 J | 14800 J                     | 15000 J  | 14200        | 9940        |             |             |             |             |             |              |
| ANTIMONY                        | 4.2 J     | 13.5 J  | 6.3 J       | 5.7 J   | 7.5 J                       | 2.8 J    | 0.61 J       | 0.51 UJ     |             |             |             |             |             |              |
| ARSENIC                         | 5.6 J     | 13.1 J  | 11.8 J      | 14.9 J  | 11.8 J                      | 12.4 J   | 9.5          | 2.4         |             |             |             |             |             |              |
| BARIUM                          | 155 J     | 306 J   | 319 J       | 377 J   | 342 J                       | 387 J    | 294          | 178 J-      |             |             |             |             |             |              |
| BERYLLIUM                       | 0.43 J    | 0.58 J  | 0.49 J      | 0.42 J  | 0.46 J                      | 0.59 J   | 0.62 J       | 0.28 J      |             |             |             |             |             |              |
| CADMIUM                         | 7 J       | 20.7 J  | 15.9 J      | 12.5 J  | 8.7 J                       | 4.5 J    | 3.8          | 0.026 U     |             |             |             |             |             |              |
| CALCIUM                         | 11800 J   | 14700 J | 11200 J     | 11000 J | 9610 J                      | 8130 J   | 12300        | 3920        |             |             |             |             |             |              |
| CHROMIUM                        | 360 J     | 1770 J  | 1100 J      | 973 J   | 514 J                       | 172 J    | 59.7         | 11.8        |             |             |             |             |             |              |
| COBALT                          | 19.5 J    | 18.6 J  | 18.1 J      | 26.5 J  | 15.2 J                      | 11.9 J   | 10.9         | 8.2 J       |             |             |             |             |             |              |
| COPPER                          | 486 J     | 2210 J  | 2430 J      | 2830 J  | 1710 J                      | 537 J    | 322          | 10          |             |             |             |             |             |              |
| IRON                            | 17600 J   | 23200 J | 24100 J     | 31400 J | 22000 J                     | 21000 J  | 22200        | 13600       |             |             |             |             |             |              |
| LEAD                            | 753 J     | 4390 J  | 4850 J      | 5490 J  | 2350 J                      | 508 J    | 325          | 5.4 J       |             |             |             |             |             |              |
| MAGNESIUM                       | 5270 J    | 6500 J  | 5350 J      | 5690 J  | 6090 J                      | 6110 J   | 8810         | 3700        |             |             |             |             |             |              |
| MANGANESE                       | 292 J     | 292 J   | 289 J       | 425 J   | 292 J                       | 307 J    | 325          | 777 J       |             |             |             |             |             |              |
| NICKEL                          | 275 J     | 378 J   | 342 J       | 447 J   | 204 J                       | 57.9 J   | 51.4         | 15.1        |             |             |             |             |             |              |
| POTASSIUM                       | 1390 J    | 1980 J  | 1650 J      | 1740 J  | 1750 J                      | 1800 J   | 1850         | 1180        |             |             |             |             |             |              |
| SELENIUM                        | 1.3 J     | 3.3 J   | 2.3 J       | 2.5 J   | 1.6 J                       | 1.3 J    | 0.82 J       | 0.45 UJ     |             |             |             |             |             |              |
| SILVER                          | 0.093 UJ  | 4.8 J   | 6.8 J       | 6.4 J   | 5.7 J                       | 1.8 J    | 1.5 J        | 0.54 U      |             |             |             |             |             |              |
| SODIUM                          | 9.6 UJ    | 12.3 UJ | 12.2 UJ     | 11.6 UJ | 9.2 UJ                      | 8.2 UJ   | 6.9 UJ       | 3.8 UJ      |             |             |             |             |             |              |
| THALLIUM                        | 0.36 U    | 0.46 UR | 0.45 UR     | 0.43 U  | 0.34 U                      | 0.31 U   | 0.26 U       | 0.39 U      |             |             |             |             |             |              |
| VANADIUM                        | 35.2 J    | 80.2 J  | 60.9 J      | 59.6 J  | 35.9 J                      | 23.5 J   | 22.7         | 16.8        |             |             |             |             |             |              |
| ZINC                            | 2670 J    | 13000 J | 20000 J     | 8750 J  | 3050 J                      | 1910 J   | 1100 J       | 46.7        |             |             |             |             |             |              |
| <b>Mercury by CV (mg/kg)</b>    |           |         |             |         |                             |          |              |             |             |             |             |             |             |              |
| MERCURY                         | 0.78 J    | 2.5 J   | 2.4 J       | 3.5 J   | 2.9 J                       | 3.2 J    | 3.6          | 0.052 U     |             |             |             |             |             |              |
| <b>PCBS by MC ARO (mg/kg)</b>   |           |         |             |         |                             |          |              |             |             |             |             |             |             |              |
| PCB-1016 (AROCOR 1016)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1221 (AROCOR 1221)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1232 (AROCOR 1232)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1242 (AROCOR 1242)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1248 (AROCOR 1248)          | 2.5 J     | 3.6 J   | 4 J         | 1.6 J   | 0.21 J                      | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1254 (AROCOR 1254)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1260 (AROCOR 1260)          | 0.31 J    | 0.29 J  | 0.57 J      | 0.26 J  | 0.011 UJ                    | 0.042 J  | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1262 (AROCOR 1262)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCB-1268 (AROCOR 1268)          | 0.011 U   | 0.011 U | 0.011 U     | 0.011 U | 0.011 UJ                    | 0.011 UJ | 0.011 U      | 0.011 U     |             |             |             |             |             |              |
| PCBs (total)                    | 2.8 J     | 3.9 J   | 4.6 J       | 1.9 J   | 0.21 J                      | 0.042 J  | 0.011 U      | 0.011 U     |             |             |             |             |             |              |

Key at the end of Table

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                                  | Sample ID   |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R3-020-V-Z1b | R3-020-V-Z2 | R3-020-V-Z3 | R3-020-V-Z4 | R3-020-V-Z5 | R3-020-V-Z6 | R3-020-V-Z7 | R3-021-V-Z1a |
|------------------------------------------|-------------|--|-------------|--|-----------------------------|--|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
|                                          | Sample Date |  | Sample Date |  | Sample Date                 |  | 5/26/2010    | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010    |
|                                          |             |  |             |  |                             |  | 0.5-1        | 1-2         | 2-3         | 3-4         | 4-6         | 6-8         | 8-10        | 0-0.5        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |             |  |             |  |                             |  |              |             |             |             |             |             |             |              |
| 2-METHYLNAPHTHALENE                      |             |  |             |  |                             |  | 0.0094       | 0.019       | 0.025       | 0.083       | 0.1 U       | 0.096 U     | 0.034 U     | 0.0017 U     |
| ACENAPHTHENE                             |             |  |             |  |                             |  | 0.0097       | 0.014       | 0.013 J     | 0.13 U      | 0.06        | 0.056       | 0.12        | 0.0017 U     |
| ACENAPHTHYLENE                           |             |  |             |  |                             |  | 0.012        | 0.02        | 0.025       | 0.13 U      | 0.1 U       | 0.096 U     | 0.034 U     | 0.0017 U     |
| ANTHRACENE                               |             |  |             |  |                             |  | 0.025        | 0.036       | 0.029       | 0.13 U      | 0.1 U       | 0.096 U     | 0.042 J     | 0.0017 U     |
| BENZO(A)ANTHRACENE                       |             |  |             |  |                             |  | 0.11         | 0.25        | 0.26        | 0.73        | 0.58        | 0.48        | 0.44        | 0.0017 UJ    |
| BENZO(A)PYRENE                           |             |  |             |  |                             |  | 0.09         | 0.24        | 0.21        | 0.75        | 0.62        | 0.46        | 0.33        | 0.0017 U     |
| BENZO(B)FLUORANTHENE                     |             |  |             |  |                             |  | 0.082        | 0.13        | 0.11        | 1.1 J       | 1 J         | 0.67 J      | 0.4 J       | 0.0017 U     |
| BENZO(K)FLUORANTHENE                     |             |  |             |  |                             |  | 0.066        | 0.081       | 0.1         | 0.58        | 0.51        | 0.34        | 0.23        | 0.0017 U     |
| CHRYSENE                                 |             |  |             |  |                             |  | 0.13         | 0.42        | 0.42        | 0.86        | 0.61        | 0.48        | 0.37        | 0.0017 U     |
| DIBENZ(A,H)ANTHRACENE                    |             |  |             |  |                             |  | 0.0047 U     | 0.0055 U    | 0.014       | 0.075       | 0.058       | 0.059       | 0.076       | 0.0017 U     |
| FLUORANTHENE                             |             |  |             |  |                             |  | 0.22         | 0.28        | 0.34        | 0.83        | 0.91        | 0.58        | 0.47        | 0.0017 U     |
| FLUORENE                                 |             |  |             |  |                             |  | 0.016        | 0.031       | 0.03        | 0.13 UJ     | 0.1 UJ      | 0.096 UJ    | 0.034 UJ    | 0.0041 J     |
| INDENO(1,2,3-C,D)PYRENE                  |             |  |             |  |                             |  | 0.012        | 0.016       | 0.021       | 0.32        | 0.26        | 0.19 J      | 0.09        | 0.0017 U     |
| NAPHTHALENE                              |             |  |             |  |                             |  | 0.0047 U     | 0.0055 U    | 0.016       | 0.056       | 0.051       | 0.049       | 0.052       | 0.0017 U     |
| PHENANTHRENE                             |             |  |             |  |                             |  | 0.068 J      | 0.082 J     | 0.091 J     | 0.86        | 0.61        | 0.49        | 0.47        | 0.0017 UJ    |
| PYRENE                                   |             |  |             |  |                             |  | 0.093        | 0.22        | 0.26        | 1.1         | 0.96        | 0.78        | 0.68        | 0.0017 U     |
| PAHs (total)                             |             |  |             |  |                             |  | 0.95 J       | 1.8 J       | 2 J         | 7.7 J       | 6.5 J       | 4.9 J       | 3.9 J       | 0.0041 J     |

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                  | Sample ID |           | Sample Date |          | Sample Depth Range (ft BGS) |          | R3-021-V-Z1b |          | R3-021-V-Z2 |          | R3-021-V-Z3 |       | R3-022-V-Z1a |     | R3-022-V-Z1b |     | R3-022-V-Z2 |     | R3-022-VR |     | R3-022-V-Z3 |  |
|--------------------------|-----------|-----------|-------------|----------|-----------------------------|----------|--------------|----------|-------------|----------|-------------|-------|--------------|-----|--------------|-----|-------------|-----|-----------|-----|-------------|--|
|                          | 5/26/2010 | 5/26/2010 | 0.5-1       | 1-2      | 5/26/2010                   | 1-2      | 5/26/2010    | 2-3      | 5/26/2010   | 0-0.5    | 5/26/2010   | 0.5-1 | 5/26/2010    | 1-2 | 5/26/2010    | 1-2 | 5/26/2010   | 1-2 | 5/26/2010 | 2-3 |             |  |
| Metals by C200.7 (mg/kg) |           |           |             |          |                             |          |              |          |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| ALUMINUM                 | 14400     | 15600     | 14400       | 15600    | 12600                       | 16500 J  | 15600 J      | 11000 J  | 10800 J     | 12800 J  |             |       |              |     |              |     |             |     |           |     |             |  |
| ANTIMONY                 | 0.51 UJ   | 0.49 UJ   | 0.48 UJ     | 0.45 UJ  | 0.47 UJ                     | 4.6 J    | 4 J          | 3.9 J    | 6.6 J       |          |             |       |              |     |              |     |             |     |           |     |             |  |
| ARSENIC                  | 2         | 3.4       | 2           | 4.9 J    | 4.6 J                       | 165 J    | 136 J        | 187 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| BARIUM                   | 169 J-    | 146 J-    | 111 J-      | 181 J    | 165 J                       | 0.037 UJ | 0.028 UJ     | 0.028 UJ | 0.028 UJ    | 0.028 UJ |             |       |              |     |              |     |             |     |           |     |             |  |
| BERYLLIUM                | 0.46 J    | 0.57 J    | 0.33 J      | 0.036 UJ | 2.3 J                       | 2.9 J    | 3.4 J        | 2.9 J    | 6.8 J       |          |             |       |              |     |              |     |             |     |           |     |             |  |
| CADMIUM                  | 0.026 U   | 0.025 U   | 0.025 U     | 2.3 J    | 2.9 J                       | 186 J    | 167 J        | 442 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| CALCIUM                  | 2160      | 1760      | 1810        | 15400 J  | 20400 J                     | 14400 J  | 15700 J      | 14800 J  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| CHROMIUM                 | 15.8      | 18.5      | 15.4        | 131 J    | 145 J                       | 30.8 J   | 38.5 J       | 45.2 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| COBALT                   | 11.9 J    | 12.8 J    | 9.8 J       | 14.6 J   | 16.8 J                      | 375 J    | 287 J        | 635 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| COPPER                   | 8         | 8.6       | 5.9         | 237 J    | 264 J                       | 591 J    | 509 J        | 1180 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| IRON                     | 17600     | 22300     | 18100       | 23500 J  | 23600 J                     | 18600 J  | 18100 J      | 22800 J  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| LEAD                     | 5.3 J     | 5.7 J     | 4.5 J       | 343 J    | 402 J                       | 5700 J   | 5600 J       | 6190 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| MAGNESIUM                | 4290      | 4670      | 4700        | 7150 J   | 6850 J                      | 496 J    | 504 J        | 602 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| MANGANESE                | 650 J     | 748 J     | 362 J       | 665 J    | 613 J                       | 121 J    | 430 J        | 446 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| NICKEL                   | 18        | 22.1      | 19.8        | 84.5 J   | 121 J                       | 368 J    | 430 J        | 446 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| POTASSIUM                | 1110      | 1310      | 1300        | 2660 J   | 2580 J                      | 1880 J   | 1830 J       | 1990 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| SELENIUM                 | 0.44 UJ   | 0.43 UJ   | 0.42 UJ     | 1.4 J    | 1.6 J                       | 1.3 J    | 1.5 J        | 2.1 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| SILVER                   | 0.53 U    | 0.52 U    | 0.5 U       | 1.1 J    | 1.1 J                       | 4.8 J    | 0.7 J        | 1.8 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| SODIUM                   | 3.8 UJ    | 3.6 UJ    | 3.6 UJ      | 235 J    | 221 J                       | 145 J    | 145 J        | 150 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| THALLIUM                 | 0.39 U    | 0.38 U    | 0.37 U      | 0.39 UJ  | 0.4 UJ                      | 0.3 UJ   | 0.31 UJ      | 0.3 UJ   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| VANADIUM                 | 24        | 28.9      | 19.2        | 27.4 J   | 28.2 J                      | 24.9 J   | 25.6 J       | 40.1 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| ZINC                     | 86.2      | 114       | 84.2        | 1120 J   | 1390 J                      | 2380 J   | 2280 J       | 5500 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| Mercury by CV (mg/kg)    |           |           |             |          |                             |          |              |          |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| MERCURY                  | 0.052 U   | 0.13      | 0.14        | 0.73 J   | 0.8 J                       | 0.67 J   | 0.56 J       | 0.88 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCBS by MC ARO (mg/kg)   |           |           |             |          |                             |          |              |          |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1016 (AROCOR 1016)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1221 (AROCOR 1221)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1232 (AROCOR 1232)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1242 (AROCOR 1242)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1248 (AROCOR 1248)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.18 J   | 0.33 J                      | 0.18 J   | 0.74 J       | 0.82 J   |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1254 (AROCOR 1254)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1260 (AROCOR 1260)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.074 J  | 0.011 U                     | 0.011 U  | 0.048 J      | 0.076 J  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1262 (AROCOR 1262)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCB-1268 (AROCOR 1268)   | 0.011 U   | 0.011 U   | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U  | 0.011 U      | 0.011 U  |             |          |             |       |              |     |              |     |             |     |           |     |             |  |
| PCBs (total)             | 0.011 U   | 0.011 U   | 0.011 U     | 0.25 J   | 0.33 J                      | 0.18 J   | 0.79 J       | 0.9 J    |             |          |             |       |              |     |              |     |             |     |           |     |             |  |

Key at the end of Table

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                                         | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R3-021-V-Z1b |           | R3-021-V-Z2 |           | R3-021-V-Z3 |        | R3-022-V-Z1a |         | R3-022-V-Z1b |        | R3-022-V-Z2 |  | R3-022-VR |  | R3-022-V-Z3 |  |
|-------------------------------------------------|-----------|--|-------------|--|-----------------------------|--|--------------|-----------|-------------|-----------|-------------|--------|--------------|---------|--------------|--------|-------------|--|-----------|--|-------------|--|
|                                                 |           |  |             |  |                             |  | 5/26/2010    |           | 5/26/2010   |           | 5/26/2010   |        | 5/26/2010    |         | 5/26/2010    |        | 5/26/2010   |  | 5/26/2010 |  | 5/26/2010   |  |
|                                                 |           |  |             |  |                             |  | 0.5-1        | 1-2       | 1-2         | 2-3       | 0-0.5       | 0.5-1  | 0.5-1        | 1-2     | 1-2          | 2-3    |             |  |           |  |             |  |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |  |             |  |                             |  |              |           |             |           |             |        |              |         |              |        |             |  |           |  |             |  |
| 2-METHYLNAPHTHALENE                             |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.014       | 0.034  | 0.034        | 0.038 J | 0.02 J       | 0.02   |             |  |           |  |             |  |
| ACENAPHTHENE                                    |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.026       | 0.14   | 0.14         | 0.18 J  | 0.06 J       | 0.047  |             |  |           |  |             |  |
| ACENAPHTHYLENE                                  |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.03        | 0.036  | 0.036        | 0.047 J | 0.021 J      | 0.041  |             |  |           |  |             |  |
| ANTHRACENE                                      |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.061       | 0.29   | 0.29         | 0.8 J   | 0.15 J       | 0.052  |             |  |           |  |             |  |
| BENZO(A)ANTHRACENE                              |           |  |             |  |                             |  | 0.0017 UJ    | 0.0017 UJ | 0.0017 UJ   | 0.0017 UJ | 0.24        | 0.61   | 0.61         | 1.1 J   | 0.41 J       | 0.31   |             |  |           |  |             |  |
| BENZO(A)PYRENE                                  |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.15 J      | 0.32 J | 0.32 J       | 1.5 J   | 0.2 J        | 0.17 J |             |  |           |  |             |  |
| BENZO(B)FLUORANTHENE                            |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.17        | 0.32   | 0.32         | 0.86 J  | 0.17 J       | 0.16   |             |  |           |  |             |  |
| BENZO(K)FLUORANTHENE                            |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.18        | 0.3    | 0.3          | 0.83 J  | 0.17 J       | 0.15   |             |  |           |  |             |  |
| CHRYSENE                                        |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.34        | 0.77   | 0.77         | 3.8 J   | 0.51 J       | 0.46   |             |  |           |  |             |  |
| DIBENZ(A,H)ANTHRACENE                           |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.031       | 0.053  | 0.053        | 0.23 J  | 0.036 J      | 0.019  |             |  |           |  |             |  |
| FLUORANTHENE                                    |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.49        | 0.87 J | 0.87 J       | 3.6 J   | 0.55 J       | 0.36   |             |  |           |  |             |  |
| FLUORENE                                        |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.03        | 0.097  | 0.097        | 0.17 J  | 0.064 J      | 0.06   |             |  |           |  |             |  |
| INDENO(1,2,3-C,D)PYRENE                         |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.076       | 0.14 J | 0.14 J       | 0.44 J  | 0.078 J      | 0.039  |             |  |           |  |             |  |
| NAPHTHALENE                                     |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.02        | 0.063  | 0.063        | 0.077 J | 0.02 J       | 0.022  |             |  |           |  |             |  |
| PHENANTHRENE                                    |           |  |             |  |                             |  | 0.0017 UJ    | 0.0017 UJ | 0.0017 UJ   | 0.0017 UJ | 0.21        | 0.81   | 0.81         | 0.85 J  | 0.43 J       | 0.21   |             |  |           |  |             |  |
| PYRENE                                          |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 0.45        | 1 J    | 1 J          | 4.4 J   | 0.7 J        | 0.43   |             |  |           |  |             |  |
| PAHs (total)                                    |           |  |             |  |                             |  | 0.0017 U     | 0.0017 U  | 0.0017 U    | 0.0017 U  | 2.6 J       | 6 J    | 6 J          | 19 J    | 3.7 J        | 2.7 J  |             |  |           |  |             |  |

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                         | Sample ID |  | Sample Date |          | Sample Depth Range (ft BGS) |           | R3-022-V-Z4 | R3-022-V-Z5 | R3-022-V-Z6 | R3-023-V-Z1a | R3-023-V-Z1b | R3-023-V-Z2 | R3-024-V-Z1a | R3-024-V-Z1b |
|---------------------------------|-----------|--|-------------|----------|-----------------------------|-----------|-------------|-------------|-------------|--------------|--------------|-------------|--------------|--------------|
|                                 |           |  |             |          |                             |           | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010    | 5/26/2010    | 5/26/2010   | 5/26/2010    | 5/26/2010    |
|                                 |           |  |             |          |                             |           | 3-4         | 4-6         | 6-6.8       | 0-0.5        | 0.5-0.9      | 1-2         | 0-0.5        | 0.5-1        |
| <b>Metals by C200.7 (mg/kg)</b> |           |  |             |          |                             |           |             |             |             |              |              |             |              |              |
| ALUMINUM                        |           |  | 15800 J     | 13600    | 12100                       | 12100     | 0.84 J      | 0.3 J       | 0.19 UJ     | 0.51 UJ      | 0.5 UJ       | 11900       | 14500 J      | 14900 J      |
| ANTIMONY                        |           |  | 0.84 J      | 8.4      | 2.7                         | 2.7       | 9 J         | 8.4         | 2.7         | 2.9          | 2.7          | 2           | 1.8 J        | 2.5 J        |
| ARSENIC                         |           |  | 263 J       | 291 J    | 114 J                       | 114 J     | 263 J       | 291 J       | 114 J       | 123 J-       | 123 J-       | 139 J-      | 186 J        | 230 J        |
| BARIUM                          |           |  | 0.024 UJ    | 0.021 UJ | 0.015 UJ                    | 0.015 UJ  | 0.024 UJ    | 0.021 UJ    | 0.015 UJ    | 0.46 J       | 0.47 J       | 0.52 J      | 0.57 J       | 0.57 J       |
| BERYLLIUM                       |           |  | 1.4 J       | 1.2 J    | 0.0071 UJ                   | 0.0071 UJ | 1.4 J       | 1.2 J       | 0.0071 UJ   | 0.026 U      | 0.026 U      | 0.026 U     | 4.4 J        | 7 J          |
| CADMIUM                         |           |  | 7370 J      | 8610     | 2410                        | 2410      | 7370 J      | 8610        | 2410        | 2360         | 2410         | 1940        | 23800 J      | 24100 J      |
| CALCIUM                         |           |  | 66.2 J      | 52.2     | 19.2                        | 19.2      | 66.2 J      | 52.2        | 19.2        | 18.1         | 17.3         | 15.2        | 166 J        | 241 J        |
| CHROMIUM                        |           |  | 11.1 J      | 10.4 J   | 12.8 J                      | 12.8 J    | 11.1 J      | 10.4 J      | 12.8 J      | 11.1 J       | 11.1 J       | 11.3 J      | 0.1 UJ       | 16 J         |
| COBALT                          |           |  | 265 J       | 196      | 15.6                        | 15.6      | 265 J       | 196         | 15.6        | 17.4         | 13.5         | 8.7         | 300 J        | 442 J        |
| COPPER                          |           |  | 22800 J     | 21500    | 19900                       | 19900     | 22800 J     | 21500       | 19900       | 16700        | 17200        | 17800       | 22700 J      | 23000 J      |
| IRON                            |           |  | 417 J       | 235      | 25.1                        | 25.1      | 417 J       | 235         | 25.1        | 27.4 J       | 17.3 J       | 6.7 J       | 431 J        | 708 J        |
| LEAD                            |           |  | 6600 J      | 7360     | 5750                        | 5750      | 6600 J      | 7360        | 5750        | 4790         | 4990         | 5000        | 6680 J       | 6580 J       |
| MAGNESIUM                       |           |  | 342 J       | 432      | 388                         | 388       | 342 J       | 432         | 388         | 321 J        | 337 J        | 298 J       | 504 J        | 495 J        |
| MANGANESE                       |           |  | 37.7 J      | 34.4     | 25.4                        | 25.4      | 37.7 J      | 34.4        | 25.4        | 22.8         | 23.1         | 22.1        | 83.9 J       | 126 J        |
| NICKEL                          |           |  | 2260 J      | 2000     | 1730                        | 1730      | 2260 J      | 2000        | 1730        | 1520         | 1600         | 1430        | 2010 J       | 1930 J       |
| POTASSIUM                       |           |  | 1.2 J       | 0.88 J   | 0.55 J                      | 0.55 J    | 1.2 J       | 0.88 J      | 0.55 J      | 0.44 UJ      | 0.44 UJ      | 0.45 UJ     | 1.5 J        | 1.3 J        |
| SELENIUM                        |           |  | 1.5 J       | 0.83 J   | 0.043 U                     | 0.043 U   | 1.5 J       | 0.83 J      | 0.043 U     | 0.53 U       | 0.53 U       | 0.54 U      | 1.6 J        | 2.6 J        |
| SILVER                          |           |  | 136 J       | 120 J    | 68.7 J                      | 68.7 J    | 136 J       | 120 J       | 68.7 J      | 3.8 UJ       | 3.7 UJ       | 3.8 UJ      | 11.9 UJ      | 10.7 UJ      |
| SODIUM                          |           |  | 0.26 UJ     | 0.34 J   | 0.16 U                      | 0.16 U    | 0.26 UJ     | 0.34 J      | 0.16 U      | 0.39 U       | 0.39 U       | 0.4 U       | 0.44 UR      | 0.4 U        |
| THALLIUM                        |           |  | 25.5 J      | 23.2     | 21.1                        | 21.1      | 25.5 J      | 23.2        | 21.1        | 18.2         | 19           | 18.3        | 27.5 J       | 29.1 J       |
| VANADIUM                        |           |  | 931 J       | 669      | 73.8                        | 73.8      | 931 J       | 669         | 73.8        | 82           | 75.5         | 60          | 1540 J       | 2470 J       |
| ZINC                            |           |  |             |          |                             |           |             |             |             |              |              |             |              |              |
| <b>Mercury by CV (mg/kg)</b>    |           |  |             |          |                             |           |             |             |             |              |              |             |              |              |
| MERCURY                         |           |  | 2.6 J       | 2.4      | 0.24                        | 0.24      | 2.6 J       | 2.4         | 0.24        | 0.052 U      | 1.4          | 1.7         | 0.6 J        | 0.64 J       |
| <b>PCBS by MC ARO (mg/kg)</b>   |           |  |             |          |                             |           |             |             |             |              |              |             |              |              |
| PCB-1016 (AROCOR 1016)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1221 (AROCOR 1221)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1232 (AROCOR 1232)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1242 (AROCOR 1242)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1248 (AROCOR 1248)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1254 (AROCOR 1254)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1260 (AROCOR 1260)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1262 (AROCOR 1262)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCB-1268 (AROCOR 1268)          |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |
| PCBs (total)                    |           |  | 0.011 U     | 0.011 U  | 0.011 U                     | 0.011 U   | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U      | 0.011 U      |

Key at the end of Table

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                                         | Sample ID | Sample Date | Sample Depth Range (ft BGS) | R3-022-V-Z4 | R3-022-V-Z5 | R3-022-V-Z6 | R3-023-V-Z1a | R3-023-V-Z1b | R3-023-V-Z2 | R3-024-V-Z1a | R3-024-V-Z1b |
|-------------------------------------------------|-----------|-------------|-----------------------------|-------------|-------------|-------------|--------------|--------------|-------------|--------------|--------------|
|                                                 |           | 5/26/2010   |                             | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010    | 5/26/2010    | 5/26/2010   | 5/26/2010    | 5/26/2010    |
|                                                 |           | 3-4         | 4-6                         | 6-6.8       | 0-0.5       | 0.5-0.9     | 1-2          | 0-0.5        | 0.5-1       |              |              |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |             |                             |             |             |             |              |              |             |              |              |
| 2-METHYLNAPHTHALENE                             | 0.033     | 0.023       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.017        | 0.013       |              |              |
| ACENAPHTHENE                                    | 0.12      | 0.023       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.019        | 0.015       |              |              |
| ACENAPHTHYLENE                                  | 0.018     | 0.027       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.049        | 0.033       |              |              |
| ANTHRACENE                                      | 0.3       | 0.1         | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.077        | 0.05        |              |              |
| BENZO(A)ANTHRACENE                              | 0.45      | 0.23        | 0.011                       | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.2          | 0.18        |              |              |
| BENZO(A)PYRENE                                  | 0.21 J    | 0.13 J      | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.12 J       | 0.15        |              |              |
| BENZO(B)FLUORANTHENE                            | 0.2       | 0.12        | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.13 J       | 0.12 J      |              |              |
| BENZO(K)FLUORANTHENE                            | 0.21      | 0.14        | 0.0044 J                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.093 J      | 0.14        |              |              |
| CHRYSENE                                        | 0.54      | 0.28        | 0.012                       | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.29         | 0.3         |              |              |
| DIBENZ(A,H)ANTHRACENE                           | 0.048     | 0.019       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.052 J      | 0.085       |              |              |
| FLUORANTHENE                                    | 0.97      | 0.34        | 0.014                       | 0.0048      | 0.0046      | 0.0046      | 0.0053       | 0.46         | 0.43        |              |              |
| FLUORENE                                        | 0.1       | 0.037       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.048        | 0.033       |              |              |
| INDENO(1,2,3-C,D)PYRENE                         | 0.079     | 0.045       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.073 J      | 0.076       |              |              |
| NAPHTHALENE                                     | 0.02      | 0.021       | 0.0017 U                    | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0023 U     | 0.013 J      | 0.011       |              |              |
| PHENANTHRENE                                    | 1         | 0.23        | 0.0062                      | 0.0021 U    | 0.0021 U    | 0.0021 U    | 0.0043 J     | 0.26 J       | 0.17 J      |              |              |
| PYRENE                                          | 1.2       | 0.35        | 0.014                       | 0.0063      | 0.0044      | 0.0044      | 0.0052       | 0.37         | 0.34        |              |              |
| PAHs (total)                                    | 5.6 J     | 2.1 J       | 0.062 J                     | 0.011       | 0.009       | 0.009       | 0.015 J      | 2.4 J        | 2.3 J       |              |              |

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                         | Sample ID |     | Sample Date |     | Sample Depth Range (ft BGS) |     | R3-024-V-Z2 | R3-024-V-Z3 | R3-024-V-Z4 | R3-024-V-Z5 | R3-024-V-Z6 | R3-025-V-Z1a | R3-025-V-Z1b | R3-026-V-Z1a |
|---------------------------------|-----------|-----|-------------|-----|-----------------------------|-----|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
|                                 | 5/26/2010 | 1-2 | 5/26/2010   | 2-3 | 5/26/2010                   | 3-4 | 5/26/2010   | 4-6         | 5/26/2010   | 6-8         | 5/26/2010   | 0-0.5        | 5/26/2010    | 5/27/2010    |
| <b>Metals by C200.7 (mg/kg)</b> |           |     |             |     |                             |     |             |             |             |             |             |              |              |              |
| ALUMINUM                        | 16100 J   |     | 17800 J     |     | 18300 J                     |     | 16300 J     |             | 13000       |             | 9740        |              | 9390         | 12800 J      |
| ANTIMONY                        | 13.2 J    |     | 0.53 UJ     |     | 0.49 UJ                     |     | 0.32 UJ     |             | 0.64 J      |             | 0.18 UJ     |              | 0.2 UJ       | 1 UJ         |
| ARSENIC                         | 11 J      |     | 13.5 J      |     | 13.9 J                      |     | 10.7 J      |             | 8.2         |             | 2.7         |              | 3.7          | 5.5 J        |
| BARIUM                          | 319 J     |     | 351 J       |     | 328 J                       |     | 310 J       |             | 318 J       |             | 71.6 J      |              | 106 J        | 126 J        |
| BERYLLIUM                       | 0.55 J    |     | 0.042 UJ    |     | 0.039 UJ                    |     | 0.025 UJ    |             | 0.021 UJ    |             | 0.015 UJ    |              | 0.016 UJ     | 0.54 J       |
| CADMIUM                         | 17.4 J    |     | 14.5 J      |     | 8.8 J                       |     | 2.7 J       |             | 1.2 J       |             | 0.67 J      |              | 1.7 J        | 1.6 J        |
| CALCIUM                         | 15400 J   |     | 12300 J     |     | 10200 J                     |     | 10500 J     |             | 10100       |             | 14100       |              | 17600        | 12700 J      |
| CHROMIUM                        | 1510 J    |     | 1170 J      |     | 732 J                       |     | 110 J       |             | 57.2        |             | 37.7        |              | 117          | 124 J        |
| COBALT                          | 22.2 J    |     | 21.8 J      |     | 21.2 J                      |     | 11.9 J      |             | 9.3 J       |             | 12.7 J      |              | 29.1 J       | 11.1 J       |
| COPPER                          | 1750 J    |     | 2370 J      |     | 2970 J                      |     | 478 J       |             | 252         |             | 40.1        |              | 113          | 233 J        |
| IRON                            | 24500 J   |     | 25400 J     |     | 25300 J                     |     | 24000 J     |             | 20600       |             | 17300       |              | 17400        | 18600 J      |
| LEAD                            | 3220 J    |     | 4810 J      |     | 5260 J                      |     | 563 J       |             | 240         |             | 92.3        |              | 381          | 284 J        |
| MAGNESIUM                       | 6320 J    |     | 6200 J      |     | 5790 J                      |     | 8320 J      |             | 8420        |             | 6130        |              | 6900         | 5690 J       |
| MANGANESE                       | 312 J     |     | 278 J       |     | 298 J                       |     | 315 J       |             | 253         |             | 371         |              | 529          | 590 J        |
| NICKEL                          | 450 J     |     | 371 J       |     | 356 J                       |     | 67.8 J      |             | 36          |             | 68.6        |              | 188          | 55.4 J       |
| POTASSIUM                       | 1910 J    |     | 2230 J      |     | 2220 J                      |     | 2320 J      |             | 2020        |             | 1660        |              | 1590         | 2340 J       |
| SELENIUM                        | 2.6 J     |     | 3.9 J       |     | 2.8 J                       |     | 1.6 J       |             | 1.3 J       |             | 0.46 U      |              | 0.63 J       | 3.1 J        |
| SILVER                          | 4 J       |     | 5.5 J       |     | 6.3 J                       |     | 1.8 J       |             | 0.99 J      |             | 0.041 U     |              | 0.29 J       | 1.1 U        |
| SODIUM                          | 12.4 UJ   |     | 285 J       |     | 294 J                       |     | 242 J       |             | 234 J       |             | 250 J       |              | 481 J        | 7.6 UJ       |
| THALLIUM                        | 0.46 UR   |     | 0.46 UJ     |     | 0.42 UJ                     |     | 0.28 UJ     |             | 0.23 U      |             | 0.16 U      |              | 0.17 U       | 0.79 U       |
| VANADIUM                        | 73.3 J    |     | 66.9 J      |     | 61.7 J                      |     | 27.7 J      |             | 22.1        |             | 16.7        |              | 19.4         | 27.4 J       |
| ZINC                            | 11600 J   |     | 12700 J     |     | 5760 J                      |     | 1320 J      |             | 741         |             | 538         |              | 1230         | 859 J        |
| <b>Mercury by CV (mg/kg)</b>    |           |     |             |     |                             |     |             |             |             |             |             |              |              |              |
| MERCURY                         | 1.7 J     |     | 2.6 J       |     | 2.7 J                       |     | 3.1 J       |             | 2.1         |             | 0.049 U     |              | 0.16         | 0.6 J        |
| <b>PCBS by MC ARO (mg/kg)</b>   |           |     |             |     |                             |     |             |             |             |             |             |              |              |              |
| PCB-1016 (AROCOR 1016)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCB-1221 (AROCOR 1221)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCB-1232 (AROCOR 1232)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCB-1242 (AROCOR 1242)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCB-1248 (AROCOR 1248)          | 0.39 J    |     | 4.5 J       |     | 1.1 J                       |     | 0.04 J      |             | 0.011 U     |             | 0.1         |              | 0.071 J      | 0.38 J       |
| PCB-1254 (AROCOR 1254)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCB-1260 (AROCOR 1260)          | 0.046 J   |     | 0.32 J      |     | 0.28 J                      |     | 0.019 J     |             | 0.011 U     |             | 0.018 J     |              | 0.011 U      | 0.011 U      |
| PCB-1262 (AROCOR 1262)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCB-1268 (AROCOR 1268)          | 0.011 U   |     | 0.011 U     |     | 0.011 U                     |     | 0.011 U     |             | 0.011 U     |             | 0.011 U     |              | 0.011 U      | 0.011 U      |
| PCBs (total)                    | 0.44 J    |     | 4.8 J       |     | 1.4 J                       |     | 0.059 J     |             | 0.011 U     |             | 0.12 J      |              | 0.071 J      | 0.38 J       |

Key at the end of Table

Table 4-2a  
Summary of Results for Reach 3 Sediment Samples

| Analyte                 | Sample ID   |           | Sample Date |           | Sample Depth Range (ft BGS) |           | SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |             |           |              |           |              |           |              |           |
|-------------------------|-------------|-----------|-------------|-----------|-----------------------------|-----------|------------------------------------------|-----------|-------------|-----------|--------------|-----------|--------------|-----------|--------------|-----------|
|                         | R3-024-V-Z2 | 5/26/2010 | R3-024-V-Z3 | 5/26/2010 | R3-024-V-Z4                 | 5/26/2010 | R3-024-V-Z5                              | 5/26/2010 | R3-024-V-Z6 | 5/26/2010 | R3-025-V-Z1a | 5/26/2010 | R3-025-V-Z1b | 5/26/2010 | R3-026-V-Z1a | 5/27/2010 |
| 2-METHYLNAPHTHALENE     | 0.056       |           | 0.039       |           | 0.055                       |           | 0.035                                    |           | 0.018       |           | 0.0017       | U         | 0.0093       |           | 0.026        |           |
| ACENAPHTHENE            | 0.044       |           | 0.03        |           | 0.05                        |           | 0.047                                    |           | 0.042       |           | 0.0037       | J         | 0.018        |           | 0.039        | J         |
| ACENAPHTHYLENE          | 0.074       |           | 0.0017      | U         | 0.13                        |           | 0.043                                    |           | 0.0017      | U         | 0.0017       | U         | 0.007        |           | 0.019        |           |
| ANTHRACENE              | 0.18        |           | 0.073       |           | 0.28                        |           | 0.16                                     |           | 0.17        |           | 0.013        |           | 0.021        |           | 0.2          |           |
| BENZO(A)ANTHRACENE      | 0.8         |           | 0.35        |           | 0.48                        |           | 0.3                                      |           | 0.28        |           | 0.025        |           | 0.047        |           | 0.61         |           |
| BENZO(A)PYRENE          | 0.73        |           | 0.32        |           | 0.42                        |           | 0.19                                     |           | 0.2         |           | 0.0095       | J         | 0.028        | J         | 0.46         |           |
| BENZO(B)FLUORANTHENE    | 0.39        | J         | 0.13        | J         | 0.31                        | J         | 0.11                                     | J         | 0.14        | J         | 0.0079       |           | 0.025        |           | 0.75         | J         |
| BENZO(K)FLUORANTHENE    | 0.25        |           | 0.18        |           | 0.35                        |           | 0.13                                     |           | 0.11        |           | 0.013        | J         | 0.023        | J         | 0.36         |           |
| CHRYSENE                | 1.6         |           | 0.63        |           | 0.75                        |           | 0.39                                     |           | 0.34        |           | 0.034        |           | 0.063        |           | 0.58         |           |
| DIBENZ(A,H)ANTHRACENE   | 0.16        |           | 0.074       |           | 0.089                       |           | 0.064                                    |           | 0.055       | J         | 0.0017       | U         | 0.0053       |           | 0.079        |           |
| FLUORANTHENE            | 0.86        |           | 0.65        |           | 1.2                         |           | 0.51                                     |           | 0.48        |           | 0.081        |           | 0.075        |           | 0.61         |           |
| FLUORENE                | 0.18        |           | 0.097       |           | 0.29                        |           | 0.051                                    |           | 0.038       |           | 0.0017       | U         | 0.0066       |           | 0.081        |           |
| INDENO(1,2,3-C,D)PYRENE | 0.19        |           | 0.11        | J         | 0.18                        |           | 0.081                                    |           | 0.074       |           | 0.005        |           | 0.011        |           | 0.18         |           |
| NAPHTHALENE             | 0.029       |           | 0.018       |           | 0.028                       |           | 0.015                                    |           | 0.007       |           | 0.0041       |           | 0.01         |           | 0.024        |           |
| PHENANTHRENE            | 0.65        | J         | 0.48        | J         | 0.93                        | J         | 0.33                                     | J         | 0.35        | J         | 0.038        |           | 0.036        |           | 0.39         |           |
| PYRENE                  | 0.98        |           | 0.59        |           | 0.97                        |           | 0.53                                     |           | 0.5         |           | 0.067        |           | 0.084        |           | 0.92         |           |
| PAHs (total)            | 7.6         | J         | 4           | J         | 6.7                         | J         | 3.1                                      | J         | 2.9         | J         | 0.31         | J         | 0.48         | J         | 5.5          | J         |



Table 4-2a

Summary of Results for Reach 3 Sediment Samples

| Sample ID R3-026-V-Z1b R3-026-V-Z2 R3-026-V-Z3 R3-026-V-Z4 R3-027-V-Z1a R3-027-V-Z1b R3-027-V-Z2 R3-027-V-Z3 R3-027-V-Z4 |  |                             |         |                             |         |                             |         |                             |         |                             |  |                             |  |
|--------------------------------------------------------------------------------------------------------------------------|--|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|-----------------------------|--|-----------------------------|--|
| Sample Date                                                                                                              |  | Sample Date                 |         | Sample Date                 |         | Sample Date                 |         | Sample Date                 |         | Sample Date                 |  | Sample Date                 |  |
| Sample Depth Range (ft BGS)                                                                                              |  | Sample Depth Range (ft BGS) |         | Sample Depth Range (ft BGS) |         | Sample Depth Range (ft BGS) |         | Sample Depth Range (ft BGS) |         | Sample Depth Range (ft BGS) |  | Sample Depth Range (ft BGS) |  |
| Analyte                                                                                                                  |  | Analyte                     |         | Analyte                     |         | Analyte                     |         | Analyte                     |         | Analyte                     |  | Analyte                     |  |
| Metals by C200.7 (mg/kg)                                                                                                 |  |                             |         |                             |         |                             |         |                             |         |                             |  |                             |  |
| ALUMINUM                                                                                                                 |  | 10100 J                     | 13400 J | 15500 J                     | 17000 J | 14100 J                     | 13400 J | 12600 J                     | 18600 J | 15600 J                     |  |                             |  |
| ANTIMONY                                                                                                                 |  | 0.78 UJ                     | 1 UJ    | 1.2 UJ                      | 1.4 UJ  | 1.2 UJ                      | 1.2 UJ  | 1.2 UJ                      | 1.3 UJ  | 1.1 UJ                      |  |                             |  |
| ARSENIC                                                                                                                  |  | 3.8 J                       | 6.2 J   | 14.8 J                      | 15.4 J  | 6 J                         | 6.2 J   | 9.2 J                       | 16.6 J  | 13.4 J                      |  |                             |  |
| BARIUM                                                                                                                   |  | 107 J                       | 142 J   | 274 J                       | 293 J   | 152 J                       | 152 J   | 170 J                       | 351 J   | 256 J                       |  |                             |  |
| BERYLLIUM                                                                                                                |  | 0.36 J                      | 0.48 J  | 0.36 J                      | 0.14 UJ | 0.31 J                      | 0.34 J  | 0.33 J                      | 0.44 J  | 0.28 J                      |  |                             |  |
| CADMIUM                                                                                                                  |  | 2.1 J                       | 3.7 J   | 12 J                        | 8.4 J   | 2.3 J                       | 2.9 J   | 8.1 J                       | 17.2 J  | 7.7 J                       |  |                             |  |
| CALCIUM                                                                                                                  |  | 11200 J                     | 16700 J | 11900 J                     | 12200 J | 14500 J                     | 13400 J | 12500 J                     | 15600 J | 9450 J                      |  |                             |  |
| CHROMIUM                                                                                                                 |  | 132 J                       | 172 J   | 926 J                       | 692 J   | 103 J                       | 189 J   | 701 J                       | 1500 J  | 674 J                       |  |                             |  |
| COBALT                                                                                                                   |  | 12.7 J                      | 17.2 J  | 22.8 J                      | 24.8 J  | 0.14 UJ                     | 0.14 UJ | 15.9 J                      | 17.1 J  | 18.2 J                      |  |                             |  |
| COPPER                                                                                                                   |  | 215 J                       | 298 J   | 2020 J                      | 2040 J  | 196 J                       | 266 J   | 877 J                       | 2440 J  | 1640 J                      |  |                             |  |
| IRON                                                                                                                     |  | 16900 J                     | 20800 J | 23800 J                     | 27000 J | 20900 J                     | 20600 J | 20400 J                     | 25800 J | 22200 J                     |  |                             |  |
| LEAD                                                                                                                     |  | 337 J                       | 493 J   | 3980 J                      | 3480 J  | 273 J                       | 417 J   | 1610 J                      | 4880 J  | 3200 J                      |  |                             |  |
| MAGNESIUM                                                                                                                |  | 5490 J                      | 6760 J  | 5750 J                      | 6280 J  | 6130 J                      | 5960 J  | 5410 J                      | 6690 J  | 5750 J                      |  |                             |  |
| MANGANESE                                                                                                                |  | 332 J                       | 480 J   | 314 J                       | 282 J   | 552 J                       | 502 J   | 354 J                       | 324 J   | 250 J                       |  |                             |  |
| NICKEL                                                                                                                   |  | 89.8 J                      | 129 J   | 490 J                       | 391 J   | 59.4 J                      | 83.5 J  | 236 J                       | 287 J   | 264 J                       |  |                             |  |
| POTASSIUM                                                                                                                |  | 1850 J                      | 2390 J  | 2220 J                      | 2470 J  | 2440 J                      | 2330 J  | 2140 J                      | 2580 J  | 2170 J                      |  |                             |  |
| SELENIUM                                                                                                                 |  | 2.2 J                       | 2.6 J   | 5 J                         | 4.9 J   | 3.2 J                       | 2.9 J   | 4 J                         | 5.7 J   | 4.1 J                       |  |                             |  |
| SILVER                                                                                                                   |  | 0.82 U                      | 1.1 U   | 4.2 J                       | 4 J     | 1.3 U                       | 1.3 U   | 2.9 J                       | 4.5 J   | 3.4 J                       |  |                             |  |
| SODIUM                                                                                                                   |  | 5.8 UJ                      | 7.5 UJ  | 2210 J                      | 3650 J  | 9.2 UJ                      | 9.3 UJ  | 8.7 UJ                      | 9.5 UJ  | 8.3 UJ                      |  |                             |  |
| THALLIUM                                                                                                                 |  | 0.6 U                       | 0.78 U  | 0.96 U                      | 1 UJ    | 0.95 U                      | 0.96 U  | 0.9 U                       | 0.98 U  | 0.86 U                      |  |                             |  |
| VANADIUM                                                                                                                 |  | 19.2 J                      | 26.8 J  | 55.4 J                      | 52.7 J  | 23.7 J                      | 23.4 J  | 35.4 J                      | 71.4 J  | 46.6 J                      |  |                             |  |
| ZINC                                                                                                                     |  | 1240 J                      | 2030 J  | 14300 J                     | 6480 J  | 953 J                       | 1670 J  | 7510 J                      | 17900 J | 6320 J                      |  |                             |  |
| Mercury by CV (mg/kg)                                                                                                    |  |                             |         |                             |         |                             |         |                             |         |                             |  |                             |  |
| MERCURY                                                                                                                  |  | 0.44 J                      | 0.69 J  | 2 J                         | 2.2 J   | 0.53 J                      | 0.7 J   | 1.2 J                       | 2.8 J   | 2.5 J                       |  |                             |  |
| PCBS by MC ARO (mg/kg)                                                                                                   |  |                             |         |                             |         |                             |         |                             |         |                             |  |                             |  |
| PCB-1016 (AROCOR 1016)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCB-1221 (AROCOR 1221)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCB-1232 (AROCOR 1232)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCB-1242 (AROCOR 1242)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCB-1248 (AROCOR 1248)                                                                                                   |  | 0.7 J                       | 0.54 J  | 1.1 J                       | 3.3 J   | 0.32 J                      | 0.38 J  | 2.1 J                       | 2.6 J   | 1.8 J                       |  |                             |  |
| PCB-1254 (AROCOR 1254)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCB-1260 (AROCOR 1260)                                                                                                   |  | 0.099 J                     | 0.011 U | 0.16 J                      | 0.32 J  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.2 J   | 0.011 UJ                    |  |                             |  |
| PCB-1262 (AROCOR 1262)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCB-1268 (AROCOR 1268)                                                                                                   |  | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     | 0.011 U | 0.011 U                     |  |                             |  |
| PCBs (total)                                                                                                             |  | 0.8 J                       | 0.54 J  | 1.3 J                       | 3.6 J   | 0.32 J                      | 0.38 J  | 2.1 J                       | 2.8 J   | 1.8 J                       |  |                             |  |

Key at the end of Table

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**Table 4-2a**  
**Summary of Results for Reach 3 Sediment Samples**

| Sample ID                                |              |             |             |             |              |              |             |             |             |
|------------------------------------------|--------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|
| Sample Date                              |              |             |             |             |              |              |             |             |             |
| Sample Depth Range (ft BGS)              |              |             |             |             |              |              |             |             |             |
| Analyte                                  | R3-026-V-Z1b | R3-026-V-Z2 | R3-026-V-Z3 | R3-026-V-Z4 | R3-027-V-Z1a | R3-027-V-Z1b | R3-027-V-Z2 | R3-027-V-Z3 | R3-027-V-Z4 |
|                                          | 5/27/2010    | 5/27/2010   | 5/27/2010   | 5/27/2010   | 5/27/2010    | 5/27/2010    | 5/27/2010   | 5/27/2010   | 5/27/2010   |
|                                          | 0.5-1        | 1-2         | 2-3         | 3-4         | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |              |             |             |             |              |              |             |             |             |
| 2-METHYLNAPHTHALENE                      | 0.037        | 0.014       | 0.046       | 0.05 U      | 0.049        | 0.037        | 0.054       | 0.13        | 0.0017 U    |
| ACENAPHTHENE                             | 0.2          | 0.012 J     | 0.048       | 0.05 U      | 0.038        | 0.048        | 0.1         | 0.085       | 0.0017 U    |
| ACENAPHTHYLENE                           | 0.024        | 0.064       | 0.09        | 0.05 U      | 0.036        | 0.029        | 0.057       | 0.092       | 0.09 J      |
| ANTHRACENE                               | 0.3          | 0.038       | 0.053 J     | 0.17        | 0.087        | 0.15         | 0.25        | 0.17        | 0.21        |
| BENZO(A)ANTHRACENE                       | 0.85         | 0.54        | 0.56        | 0.43        | 0.31         | 0.53         | 0.83        | 0.71        | 0.61        |
| BENZO(A)PYRENE                           | 0.53         | 0.45        | 0.49        | 0.27        | 0.19 J       | 0.29 J       | 0.44 J      | 0.42 J      | 0.33 J      |
| BENZO(B)FLUORANTHENE                     | 0.86 J       | 0.68 J      | 0.5 J       | 0.32 J      | 0.26         | 0.29         | 0.4         | 0.34        | 0.4         |
| BENZO(K)FLUORANTHENE                     | 0.45         | 0.35        | 0.29        | 0.2         | 0.19         | 0.29         | 0.32        | 0.29        | 0.29        |
| CHRYSENE                                 | 0.79         | 0.57        | 0.72        | 0.44        | 0.39         | 0.65         | 1.7         | 1.9 J       | 0.91        |
| DIBENZ(A,H)ANTHRACENE                    | 0.086 U      | 0.026       | 0.096       | 0.05 U      | 0.034        | 0.05         | 0.079 J     | 0.091 J     | 0.07 J      |
| FLUORANTHENE                             | 0.96         | 0.56        | 0.5         | 0.45        | 0.62         | 0.68         | 0.83        | 0.85        | 0.7 J       |
| FLUORENE                                 | 0.086 UJ     | 0.04        | 0.055 UJ    | 0.05 UJ     | 0.033        | 0.041        | 0.12        | 0.18        | 0.16        |
| INDENO(1,2,3-C,D)PYRENE                  | 0.19         | 0.05        | 0.12        | 0.05 U      | 0.084        | 0.11         | 0.14        | 0.13        | 0.13        |
| NAPHTHALENE                              | 0.03         | 0.015       | 0.062       | 0.05 U      | 0.19         | 0.11 J       | 0.071       | 0.062       | 0.082       |
| PHENANTHRENE                             | 1            | 0.28        | 0.52        | 0.41        | 0.29         | 0.38         | 0.64        | 0.76        | 0.81        |
| PYRENE                                   | 1.2          | 0.67        | 0.87        | 0.7         | 0.53         | 0.76         | 2.2         | 1           | 1.7         |
| PAHs (total)                             | 7.6 J        | 4.4 J       | 5.1 J       | 3.5 J       | 3.4 J        | 4.6 J        | 8.4 J       | 7.3 J       | 6.7 J       |

Key:

BGS = Below ground surface (in this case below top of sediment surface).

ft = Feet.

J = Estimated at the concentration listed.

mg/Kg = Milligrams per kilogram.

-P = Ponar creek location/sample.

PCB = Polychlorinated biphenyl.

SVOA = Semivolatile organic compounds analysis.

U = Non-detect.

UJ = Non-detect/estimated.

UR = Non-detect/rejected.

-V = Vibracore creek location/sample.

-VR = Vibracore creek duplicate sample.

-Z = Sample depth interval consecutively numbered.

Table 4-2b  
Summary of Results for Reach 3 Soil Samples

|                                                 | Sample ID<br>Sample Date<br>Sample Depth Range (ft BGS) | R3-107-W<br>11/16/2009<br>0-0.5 | R3-108-W<br>11/16/2009<br>0-0.5 | R3-109-W<br>11/16/2009<br>0-0.5 | R3-110-W<br>11/16/09<br>0-0.5 |
|-------------------------------------------------|---------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|
| <b>Analyte</b>                                  |                                                         |                                 |                                 |                                 |                               |
| <b>Metals by C200.7 (mg/kg)</b>                 |                                                         |                                 |                                 |                                 |                               |
| ALUMINUM                                        |                                                         | 11100                           | 10500                           | 10700                           | 12100                         |
| ANTIMONY                                        |                                                         | 1.8 U                           | 1.1 U                           | 1.2 U                           | 1.2 U                         |
| ARSENIC                                         |                                                         | 4.5 J+                          | 5 J+                            | 5.4 J+                          | 5.4 J+                        |
| BARIUM                                          |                                                         | 175                             | 162                             | 171                             | 209                           |
| BERYLLIUM                                       |                                                         | 0.67 J+                         | 0.63 J+                         | 0.64 J+                         | 0.72 J+                       |
| CADMIUM                                         |                                                         | 2                               | 2.2                             | 2.7                             | 4.2                           |
| CALCIUM                                         |                                                         | 8340                            | 10100                           | 10400                           | 10700                         |
| CHROMIUM                                        |                                                         | 108                             | 111                             | 126                             | 216                           |
| COBALT                                          |                                                         | 10.9 J                          | 11.9                            | 12.5                            | 16.9                          |
| COPPER                                          |                                                         | 210                             | 211                             | 234                             | 347                           |
| IRON                                            |                                                         | 22800                           | 22000                           | 22900                           | 25200                         |
| LEAD                                            |                                                         | 334                             | 310                             | 342                             | 533                           |
| MAGNESIUM                                       |                                                         | 5420                            | 5490                            | 5580                            | 5960                          |
| MANGANESE                                       |                                                         | 585                             | 805                             | 884                             | 533                           |
| NICKEL                                          |                                                         | 60.4                            | 65.2                            | 75.7                            | 146                           |
| POTASSIUM                                       |                                                         | 1190                            | 1090                            | 1090                            | 1070                          |
| SELENIUM                                        |                                                         | 1.3 J                           | 0.67 U                          | 0.73 U                          | 0.99 J                        |
| SILVER                                          |                                                         | 0.2 UJ                          | 0.12 UJ                         | 0.14 U                          | 0.14 UJ                       |
| SODIUM                                          |                                                         | 4.7 UJ                          | 2.9 UJ                          | 3.1 UJ                          | 3.2 UJ                        |
| THALLIUM                                        |                                                         | 0.71 U                          | 0.44 U                          | 0.48 U                          | 0.49 U                        |
| VANADIUM                                        |                                                         | 23.2                            | 22.2                            | 23.5                            | 31.4                          |
| ZINC                                            |                                                         | 926                             | 899                             | 1050                            | 1710                          |
| <b>Mercury by CV (mg/kg)</b>                    |                                                         |                                 |                                 |                                 |                               |
| MERCURY                                         |                                                         | 0.6                             | 0.69                            | 1                               | 0.72                          |
| <b>PCBS by MC ARO (mg/kg)</b>                   |                                                         |                                 |                                 |                                 |                               |
| PCB-1016 (AROCLOR 1016)                         |                                                         | 0.022 U                         | 0.011 U                         | 0.011 UJ                        | 0.015 U                       |
| PCB-1221 (AROCLOR 1221)                         |                                                         | 0.041 U                         | 0.021 U                         | 0.021 U                         | 0.029 U                       |
| PCB-1232 (AROCLOR 1232)                         |                                                         | 0.015 U                         | 0.0077 U                        | 0.0078 U                        | 0.011 U                       |
| PCB-1242 (AROCLOR 1242)                         |                                                         | 0.0095 U                        | 0.0049 U                        | 0.0049 U                        | 0.0066 U                      |
| PCB-1248 (AROCLOR 1248)                         |                                                         | 0.016 U                         | 0.0081 U                        | 0.0081 U                        | 0.011 U                       |
| PCB-1254 (AROCLOR 1254)                         |                                                         | 0.53 J                          | 0.3                             | 0.27                            | 0.2                           |
| PCB-1260 (AROCLOR 1260)                         |                                                         | 0.018 U                         | 0.0095 U                        | 0.0095 UJ                       | 0.013 U                       |
| PCB-1262 (AROCHLOR 1262)                        |                                                         | 0.018 U                         | 0.009 U                         | 0.0091 U                        | 0.012 U                       |
| PCB-1268 (AROCLOR 1268)                         |                                                         | 0.024 U                         | 0.013 U                         | 0.013 U                         | 0.017 U                       |
| PCBs (total)                                    |                                                         | 0.53                            | 0.3                             | 0.27                            | 0.2                           |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |                                                         |                                 |                                 |                                 |                               |
| 2-METHYLNAPHTHALENE                             |                                                         | --                              | --                              | --                              | 0.025                         |
| ACENAPHTHENE                                    |                                                         | --                              | --                              | --                              | 0.0092                        |
| ACENAPHTHYLENE                                  |                                                         | --                              | --                              | --                              | 0.017 J                       |
| ANTHRACENE                                      |                                                         | --                              | --                              | --                              | 0.023                         |
| BENZO(A)ANTHRACENE                              |                                                         | --                              | --                              | --                              | 0.21                          |
| BENZO(A)PYRENE                                  |                                                         | --                              | --                              | --                              | 0.16                          |
| BENZO(B)FLUORANTHENE                            |                                                         | --                              | --                              | --                              | 0.18                          |
| BENZO(K)FLUORANTHENE                            |                                                         | --                              | --                              | --                              | 0.12                          |
| CHRYSENE                                        |                                                         | --                              | --                              | --                              | 0.22 J                        |
| DIBENZ(A,H)ANTHRACENE                           |                                                         | --                              | --                              | --                              | 0.033                         |
| FLUORANTHENE                                    |                                                         | --                              | --                              | --                              | 0.36                          |
| FLUORENE                                        |                                                         | --                              | --                              | --                              | 0.013                         |
| INDENO(1,2,3-C,D)PYRENE                         |                                                         | --                              | --                              | --                              | 0.16                          |
| NAPHTHALENE                                     |                                                         | --                              | --                              | --                              | 0.025 J                       |
| PENTACHLOROPHENOL                               |                                                         | --                              | --                              | --                              | 0.0086                        |
| PHENANTHRENE                                    |                                                         | --                              | --                              | --                              | 0.15                          |
| PYRENE                                          |                                                         | --                              | --                              | --                              | 0.36                          |
| PAHs (total)                                    |                                                         | --                              | --                              | --                              | 2.1                           |

Table 4-2b  
Summary of Results for Reach 3 Soil Samples

|                                         | Sample ID                   | R3-107-W   | R3-108-W   | R3-109-W   | R3-110-W  |
|-----------------------------------------|-----------------------------|------------|------------|------------|-----------|
|                                         | Sample Date                 | 11/16/2009 | 11/16/2009 | 11/16/2009 | 11/16/09  |
|                                         | Sample Depth Range (ft BGS) | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5     |
| <b>Analyte</b>                          |                             |            |            |            |           |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                             |            |            |            |           |
| ALDRIN                                  |                             | --         | --         | --         | 0.00054 U |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                             | --         | --         | --         | 0.00084 U |
| ALPHA-CHLORDANE                         |                             | --         | --         | --         | 0.00042 U |
| ALPHA ENDOSULFAN                        |                             | --         | --         | --         | 0.001 U   |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                             | --         | --         | --         | 0.0011 U  |
| BETA ENDOSULFAN                         |                             | --         | --         | --         | 0.0029 U  |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                             | --         | --         | --         | 0.0065 J  |
| DIELDRIN                                |                             | --         | --         | --         | 0.007 U   |
| ENDOSULFAN SULFATE                      |                             | --         | --         | --         | 0.00099 U |
| ENDRIN                                  |                             | --         | --         | --         | 0.00099 U |
| ENDRIN ALDEHYDE                         |                             | --         | --         | --         | 0.0031 U  |
| ENDRIN KETONE                           |                             | --         | --         | --         | 0.0038 U  |
| GAMMA BHC (LINDANE)                     |                             | --         | --         | --         | 0.0008 U  |
| GAMMA-CHLORDANE                         |                             | --         | --         | --         | 0.0089 J  |
| HEPTACHLOR                              |                             | --         | --         | --         | 0.001 U   |
| HEPTACHLOR EPOXIDE                      |                             | --         | --         | --         | 0.00071 U |
| METHOXYCHLOR                            |                             | --         | --         | --         | 0.0031 U  |
| P,P'-DDD                                |                             | --         | --         | --         | 0.0022 U  |
| P,P'-DDE                                |                             | --         | --         | --         | 0.0013 U  |
| P,P'-DDT                                |                             | --         | --         | --         | 0.0037 U  |
| TOXAPHENE                               |                             | --         | --         | --         | 0.16 U    |

Key:

BGS = Below ground surface.  
ft = Feet.  
J = Estimated at the concentration listed.  
mg/Kg = Milligrams per kilogram.  
PCB = Polychlorinated biphenyl.  
SVOA = Semivolatile organic compounds analysis.  
U = Non-detect.  
UJ = Non-detect/estimated.  
-W = Wetland location/sample.  
-- = Not submitted for this parameter.

Table 4-3a

Summary of Results for Reach 4 Sediment Samples

| Analyte                                         | Sample ID |  | Sample Date |          | Sample Depth Range (ft BGS) |          | R4-028-C   | R4-029-C   | R4-030-C   | R4-031-C   | R4-032-C   | R4-033-C   | R4-034-C   | R4-035-C   |
|-------------------------------------------------|-----------|--|-------------|----------|-----------------------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|
|                                                 |           |  |             |          |                             |          | 11/17/2009 | 11/16/2009 | 11/16/2009 | 11/16/2009 | 11/16/2009 | 11/17/2009 | 11/17/2009 | 11/17/2009 |
|                                                 |           |  | 0-1.55      | 0-1.2    | 0-1.1                       | 0-0.8    | 0-0.7      | 0-0.4      | 0-0.4      | 0-0.4      | 0-0.4      | 0-0.4      | 0-0.4      | 0-0.8      |
| <b>Metals by C200.7 (mg/kg)</b>                 |           |  |             |          |                             |          |            |            |            |            |            |            |            |            |
| ALUMINUM                                        |           |  | 9030        | 9950     | 6560                        | 7990     | 9510       | 7070       | 5930       |            |            |            |            | 6560       |
| ANTIMONY                                        |           |  | 1.4 U       | 1.6 U    | 0.97 U                      | 1.4 U    | 2.3 J      | 0.8 U      | 1.1 U      |            |            |            |            | 1.2 U      |
| ARSENIC                                         |           |  | 5.5 J+      | 4.2 J+   | 2.9 J+                      | 6.4 J+   | 5.2 J+     | 3          | 3.3        |            |            |            |            | 2.6        |
| BARIUM                                          |           |  | 135         | 149      | 70.1                        | 162      | 135        | 64.8       | 68.2       |            |            |            |            | 100        |
| BERYLLIUM                                       |           |  | 0.58 J+     | 0.6 J+   | 0.47 J+                     | 0.48 J+  | 0.53 J+    | 0.48 J     | 0.43 J     |            |            |            |            | 0.4 J      |
| CADMIUM                                         |           |  | 4           | 2.3      | 0.63                        | 7.2      | 1.8        | 0.51       | 0.49 J     |            |            |            |            | 1.2        |
| CALCIUM                                         |           |  | 15900       | 18700    | 11800                       | 9900     | 7770       | 7360       | 6750       |            |            |            |            | 8350       |
| CHROMIUM                                        |           |  | 211         | 90       | 36.2                        | 451      | 133        | 19.3       | 19.8       |            |            |            |            | 97.9       |
| COBALT                                          |           |  | 20.8        | 11.1     | 9                           | 12.4     | 11.9       | 9.4        | 9.9        |            |            |            |            | 6.7 J      |
| COPPER                                          |           |  | 304         | 191      | 50.5                        | 725      | 238        | 26.4       | 26.9       |            |            |            |            | 160        |
| IRON                                            |           |  | 23400       | 21900    | 17800                       | 18900    | 20700      | 20900      | 18700      |            |            |            |            | 14900      |
| LEAD                                            |           |  | 450         | 264      | 103                         | 1460     | 392        | 46.7       | 62.3       |            |            |            |            | 307        |
| MAGNESIUM                                       |           |  | 5780        | 5730     | 4750                        | 4340     | 5060       | 4670       | 3940       |            |            |            |            | 3450       |
| MANGANESE                                       |           |  | 466         | 476      | 397                         | 342      | 382        | 703        | 725        |            |            |            |            | 248        |
| NICKEL                                          |           |  | 235         | 54.9     | 38.1                        | 211      | 91.6       | 27.3       | 34.1       |            |            |            |            | 40.7       |
| POTASSIUM                                       |           |  | 1120        | 1050     | 771                         | 848 J    | 1000       | 453 J+     | 399 J+     |            |            |            |            | 564 J      |
| SELENIUM                                        |           |  | 0.87 J      | 1.1 J    | 0.59 U                      | 1.5 J    | 0.96 U     | 0.49 U     | 0.65 U     |            |            |            |            | 0.75 U     |
| SILVER                                          |           |  | 0.16 UJ     | 0.18 UJ  | 0.11 UR                     | 0.31 J-  | 0.18 UJ    | 0.09 U     | 0.12 U     |            |            |            |            | 0.14 U     |
| SODIUM                                          |           |  | 3.7 UJ      | 4.2 UJ   | 2.5 UJ                      | 3.7 UJ   | 4.1 UJ     | 2.1 UJ     | 2.8 UJ     |            |            |            |            | 3.2 UJ     |
| THALLIUM                                        |           |  | 0.56 U      | 0.63 U   | 0.39 U                      | 0.57 U   | 0.63 U     | 0.32 U     | 0.42 U     |            |            |            |            | 0.49 U     |
| VANADIUM                                        |           |  | 30          | 20.8     | 13.9                        | 29.1     | 22         | 16.7       | 16.8       |            |            |            |            | 13.9       |
| ZINC                                            |           |  | 1750        | 829      | 345                         | 6510     | 1200       | 183        | 224        |            |            |            |            | 688        |
| <b>Mercury by CV (mg/kg)</b>                    |           |  |             |          |                             |          |            |            |            |            |            |            |            |            |
| MERCURY                                         |           |  | 0.42        | 0.72     | 0.19                        | 1        | 0.63       | 0.16       | 0.31       |            |            |            |            | 1.2        |
| <b>PCBS by MC ARO (mg/kg)</b>                   |           |  |             |          |                             |          |            |            |            |            |            |            |            |            |
| PCB-1016 (AROCOR 1016)                          |           |  | 0.015 U     | 0.022 U  | 0.015 U                     | 0.019 U  | 0.015 U    | 0.01 U     | 0.011 U    |            |            |            |            | 0.016 U    |
| PCB-1221 (AROCOR 1221)                          |           |  | 0.028 U     | 0.041 U  | 0.027 U                     | 0.035 U  | 0.029 U    | 0.02 U     | 0.021 U    |            |            |            |            | 0.03 U     |
| PCB-1232 (AROCOR 1232)                          |           |  | 0.01 U      | 0.015 U  | 0.01 U                      | 0.013 U  | 0.011 U    | 0.0072 U   | 0.0076 U   |            |            |            |            | 0.011 U    |
| PCB-1242 (AROCOR 1242)                          |           |  | 0.0065 U    | 0.0094 U | 0.0063 U                    | 0.0081 U | 0.0067 U   | 0.0045 U   | 0.0048 U   |            |            |            |            | 0.007 U    |
| PCB-1248 (AROCOR 1248)                          |           |  | 0.011 U     | 0.016 U  | 0.01 U                      | 0.013 U  | 0.011 U    | 0.0075 U   | 0.0079 U   |            |            |            |            | 0.012 U    |
| PCB-1254 (AROCOR 1254)                          |           |  | 0.37        | 0.072 J  | 0.7 J                       | 0.17 J   | 0.3        | 0.067      | 0.1        |            |            |            |            | 0.81       |
| PCB-1260 (AROCOR 1260)                          |           |  | 0.013 U     | 0.018 U  | 0.012 U                     | 0.016 U  | 0.013 U    | 0.0088 U   | 0.0093 U   |            |            |            |            | 0.014 U    |
| PCB-1262 (AROCOR 1262)                          |           |  | 0.012 U     | 0.017 U  | 0.012 U                     | 0.015 U  | 0.012 U    | 0.0084 U   | 0.0089 U   |            |            |            |            | 0.013 U    |
| PCB-1268 (AROCOR 1268)                          |           |  | 0.017 U     | 0.024 U  | 0.016 U                     | 0.021 U  | 0.017 U    | 0.012 U    | 0.012 U    |            |            |            |            | 0.018 U    |
| PCBs (total)                                    |           |  | 0.37        | 0.072    | 0.7                         | 0.17     | 0.3        | 0.067      | 0.1        |            |            |            |            | 0.81       |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |  |             |          |                             |          |            |            |            |            |            |            |            |            |
| 2-METHYLNAPHTHALENE                             |           |  | 0.033 J     | --       | 0.12 J                      | 0.072 J  | --         | --         | 0.34 J     |            |            |            |            | --         |
| ACENAPHTHENE                                    |           |  | 0.023 J     | --       | 0.54 U                      | 0.07 J   | --         | --         | 0.13       |            |            |            |            | --         |

Table 4-3a

Summary of Results for Reach 4 Sediment Samples

| Analyte                                 | Sample ID   | R4-028-C   | R4-029-C   | R4-030-C   | R4-031-C   | R4-032-C   | R4-033-C   | R4-034-C   | R4-035-C   |
|-----------------------------------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                                         | Sample Date | 11/17/2009 | 11/16/2009 | 11/16/2009 | 11/16/2009 | 11/16/2009 | 11/17/2009 | 11/17/2009 | 11/17/2009 |
| Sample Depth Range (ft BGS)             |             | 0-1.55     | 0-1.2      | 0-1.1      | 0-0.8      | 0-0.7      | 0-0.4      | 0-0.4      | 0-0.8      |
| ACENAPHTHYLENE                          |             | 0.03 J     | --         | 0.055      | 0.047      | --         | --         | 0.013 J    | --         |
| ANTHRACENE                              |             | 0.058 --   | --         | 1.8        | 0.28 J     | --         | --         | 0.23       | --         |
| BENZO(A)ANTHRACENE                      |             | 0.29       | --         | 4          | 1.4 J      | --         | --         | 0.43 J     | --         |
| BENZO(A)PYRENE                          |             | 0.24       | --         | 3.1        | 1          | --         | --         | 0.45 J     | --         |
| BENZO(B)FLUORANTHENE                    |             | 0.25       | --         | 2.7        | 0.8        | --         | --         | 0.43 J     | --         |
| BENZO(K)FLUORANTHENE                    |             | 0.18       | --         | 2.4        | 0.65 J     | --         | --         | 0.32       | --         |
| CHRYSENE                                |             | 0.34       | --         | 3.7        | 1.5        | --         | --         | 0.49 J     | --         |
| DIBENZ(A,H)ANTHRACENE                   |             | 0.032 --   | --         | 0.45       | 0.17 J     | --         | --         | 0.094      | --         |
| FLUORANTHENE                            |             | 0.42       | --         | 7          | 1.5        | --         | --         | 0.55 J     | --         |
| FLUORENE                                |             | 0.021 J    | --         | 0.39       | 0.092      | --         | --         | 0.12 J     | --         |
| INDENO(1,2,3-C,D)PYRENE                 |             | 0.19 J     | --         | 2.2 J      | 0.57 J     | --         | --         | 0.3        | --         |
| NAPHTHALENE                             |             | 0.039 J    | --         | 0.15 UJ    | 0.062 J    | --         | --         | 0.27 J     | --         |
| PENTACHLOROPHENOL                       |             | 0.038 --   | --         | 0.095      | 0.059 J    | --         | --         | 0.0032     | --         |
| PHENANTHRENE                            |             | 0.16       | --         | 5.1        | 0.82 J     | --         | --         | 0.71       | --         |
| PYRENE                                  |             | 0.52       | --         | 6.4        | 2.3        | --         | --         | 0.79       | --         |
| PAHs (total)                            |             | 2.9        | --         | 40         | 11         | --         | --         | 5.4        | --         |
| Pesticides by MC PEST (mg/kg)           |             |            |            |            |            |            |            |            |            |
| ALDRIN                                  |             | 0.0052 U   | --         | 0.0051 U   | 0.0066 U   | --         | --         | 0.00039 U  | --         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |             | 0.0082 U   | --         | 0.0008 U   | 0.001 U    | --         | --         | 0.00061 U  | --         |
| ALPHA-CHLORDANE                         |             | 0.00041 U  | --         | 0.0004 U   | 0.00051 U  | --         | --         | 0.0003 U   | --         |
| ALPHA ENDOSULFAN                        |             | 0.001 U    | --         | 0.0098 J   | 0.0013 U   | --         | --         | 0.00036 U  | --         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |             | 0.0011 U   | --         | 0.0011 U   | 0.0014 U   | --         | --         | 0.0008 U   | --         |
| BETA ENDOSULFAN                         |             | 0.008 J    | --         | 0.014 J    | 0.0035 U   | --         | --         | 0.0021 U   | --         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |             | 0.03 J     | --         | 0.063 J    | 0.013 J    | --         | --         | 0.01 J     | --         |
| DIELDRIN                                |             | 0.013      | --         | 0.019 J    | 0.0012 U   | --         | --         | 0.0037 J   | --         |
| ENDOSULFAN SULFATE                      |             | 0.00097 U  | --         | 0.013 J    | 0.0012 U   | --         | --         | 0.00072 U  | --         |
| ENDRIN                                  |             | 0.00097 U  | --         | 0.00095 U  | 0.0012 U   | --         | --         | 0.0099 J   | --         |
| ENDRIN ALDEHYDE                         |             | 0.003 U    | --         | 0.003 U    | 0.0038 U   | --         | --         | 0.0023 U   | --         |
| ENDRIN KETONE                           |             | 0.0037 U   | --         | 0.0037 U   | 0.0047 U   | --         | --         | 0.0028 U   | --         |
| GAMMA BHC (LINDANE)                     |             | 0.0053 J   | --         | 0.01       | 0.0036 J   | --         | --         | 0.00058 U  | --         |
| GAMMA-CHLORDANE                         |             | 0.018 J    | --         | 0.045      | 0.011      | --         | --         | 0.00046 U  | --         |
| HEPTACHLOR                              |             | 0.001 U    | --         | 0.00097 U  | 0.0013 U   | --         | --         | 0.00074 U  | --         |
| HEPTACHLOR EPOXIDE                      |             | 0.00069 U  | --         | 0.00068 U  | 0.00087 U  | --         | --         | 0.00051 U  | --         |
| METHOXYCHLOR                            |             | 0.003 U    | --         | 0.003 U    | 0.0038 U   | --         | --         | 0.0022 U   | --         |
| P,P'-DDD                                |             | 0.0051 J   | --         | 0.0069     | 0.0027     | --         | --         | 0.0016 U   | --         |
| P,P'-DDE                                |             | 0.0074 J   | --         | 0.028 J    | 0.011 U    | --         | --         | 0.00096 U  | --         |
| P,P'-DDT                                |             | 0.0036 U   | --         | 0.025 U    | 0.0045 U   | --         | --         | 0.0027 U   | --         |
| TOXAPHENE                               |             | 0.15 U     | --         | 0.15 U     | 0.19 U     | --         | --         | 0.11 U     | --         |

Table 4-3a

Summary of Results for Reach 4 Sediment Samples

| Analyte                                  | Sample ID |  | Sample Date |          | Sample Depth Range (ft BGS) |          | R4-036-C   | R4-037-C   | R4-038-C   | R4-119-T   | R4-135-C-Z1a | R4-135-C-Comp | R4-136-C-Z1a | R4-137-C-Comp |
|------------------------------------------|-----------|--|-------------|----------|-----------------------------|----------|------------|------------|------------|------------|--------------|---------------|--------------|---------------|
|                                          |           |  |             |          |                             |          | 11/17/2009 | 11/17/2009 | 11/18/2009 | 11/17/2009 | 6/21/2010    | 6/21/2010     | 6/21/2010    | 6/21/2010     |
|                                          |           |  |             |          |                             |          | 0-0.9      | 0-0.6      | 0-0.4      | 0-0.5      | 0-0.5        | 0-0.8         | 0-0.4        | 0-0.7         |
| Metals by C200.7 (mg/kg)                 |           |  |             |          |                             |          |            |            |            |            |              |               |              |               |
| ALUMINUM                                 |           |  | 7420        | 6540     | 7530                        | 7410     |            |            |            |            | 13500 J      | 12800 J       | 14100 J      | 9220 J        |
| ANTIMONY                                 |           |  | 1.7 U       | 1.2 U    | 1.2 U                       | 1.1 U    |            |            |            |            | 1.4 UJ       | 1.2 UJ        | 1.1 UJ       | 0.87 UJ       |
| ARSENIC                                  |           |  | 3.4         | 3.1      | 2.9                         | 2.6      |            |            |            |            | 5.7 J        | 4.7 J         | 14.3 J       | 4.6 J         |
| BARIUM                                   |           |  | 135         | 80       | 96.8                        | 81.4     |            |            |            |            | 192 J        | 123 J         | 210 J        | 315 J         |
| BERYLLIUM                                |           |  | 0.5 J       | 0.38 J   | 0.48 J+                     | 0.51 J   |            |            |            |            | 0.44 J       | 0.5 J         | 0.45 J       | 0.36 J        |
| CADMIUM                                  |           |  | 1.3         | 0.99     | 0.18 J-                     | 0.38 J   |            |            |            |            | 2.3 J        | 2 J           | 10.6 J       | 1.6 J         |
| CALCIUM                                  |           |  | 10500       | 7080     | 8100                        | 5710     |            |            |            |            | 18900 J      | 25100 J       | 15700 J      | 25100 J       |
| CHROMIUM                                 |           |  | 60.1        | 68.6     | 101 J                       | 13.1     |            |            |            |            | 109 J        | 72.7 J        | 1090 J       | 75.7 J        |
| COBALT                                   |           |  | 7.9 J       | 8.1      | 7.8                         | 9.5      |            |            |            |            | 12.2 J       | 14.4 J        | 23.7 J       | 9.2 J         |
| COPPER                                   |           |  | 128         | 249      | 136                         | 9.5      |            |            |            |            | 232 J        | 109 J         | 1230 J       | 99.4 J        |
| IRON                                     |           |  | 16800       | 15500    | 15800                       | 19700    |            |            |            |            | 22000 J      | 22500 J       | 27100 J      | 16200 J       |
| LEAD                                     |           |  | 200         | 176      | 238 J                       | 20.3     |            |            |            |            | 385 J        | 200 J         | 2320 J       | 256 J         |
| MAGNESIUM                                |           |  | 3990        | 3600     | 3840                        | 4550     |            |            |            |            | 5710 J       | 7660 J        | 5580 J       | 10500 J       |
| MANGANESE                                |           |  | 349         | 360      | 380                         | 382      |            |            |            |            | 645 J        | 805 J         | 572 J        | 488 J         |
| NICKEL                                   |           |  | 36.4        | 41       | 43.8 J                      | 20.5     |            |            |            |            | 70.9 J       | 73.2 J        | 484 J        | 41.6 J        |
| POTASSIUM                                |           |  | 961 J       | 766      | 891                         | 524 J+   |            |            |            |            | 2150 J       | 2160 J        | 1920 J       | 1600 J        |
| SELENIUM                                 |           |  | 1.5 J       | 0.88 J   | 1.4 J                       | 0.66 U   |            |            |            |            | 3.5 J        | 3.3 J         | 4.6 J        | 2.5 J         |
| SILVER                                   |           |  | 0.19 U      | 0.14 U   | 0.14 UJ                     | 0.12 U   |            |            |            |            | 1.5 UJ       | 1.3 U         | 2.8 J        | 0.92 U        |
| SODIUM                                   |           |  | 4.4 UJ      | 3.2 UJ   | 404 J                       | 2.8 UJ   |            |            |            |            | 355 J        | 285 J         | 266 J        | 196 J         |
| THALLIUM                                 |           |  | 0.66 U      | 0.48 U   | 0.5 U                       | 0.43 U   |            |            |            |            | 1.1 UJ       | 0.95 U        | 0.83 U       | 0.67 U        |
| VANADIUM                                 |           |  | 15          | 13.6     | 15.9                        | 19.5     |            |            |            |            | 23.1 J       | 22.1 J        | 48.6 J       | 16.8 J        |
| ZINC                                     |           |  | 507         | 575      | 574 J                       | 63       |            |            |            |            | 909 J        | 624 J         | 8670 J       | 536 J         |
| Mercury by CV (mg/kg)                    |           |  |             |          |                             |          |            |            |            |            |              |               |              |               |
| MERCURY                                  |           |  | 0.56        | 0.47     | 0.28                        | 0.053 J  |            |            |            |            | 0.71 J       | 0.13 J        | 1.2 J        | 0.39 J        |
| PCBS by MC ARO (mg/kg)                   |           |  |             |          |                             |          |            |            |            |            |              |               |              |               |
| PCB-1016 (AROCOR 1016)                   |           |  | 0.019 U     | 0.015 U  | 0.016 U                     | 0.011 U  |            |            |            |            | 0.099 U      | 0.08 U        | 0.091 U      | 0.091 U       |
| PCB-1221 (AROCOR 1221)                   |           |  | 0.035 U     | 0.027 U  | 0.03 U                      | 0.021 U  |            |            |            |            | 0.099 U      | 0.08 U        | 0.091 U      | 0.091 U       |
| PCB-1232 (AROCOR 1232)                   |           |  | 0.013 U     | 0.01 U   | 0.011 U                     | 0.0077 U |            |            |            |            | 0.099 U      | 0.08 U        | 0.091 U      | 0.091 U       |
| PCB-1242 (AROCOR 1242)                   |           |  | 0.0082 U    | 0.0064 U | 0.007 U                     | 0.0049 U |            |            |            |            | 0.099 U      | 0.08 U        | 0.091 U      | 0.091 U       |
| PCB-1248 (AROCOR 1248)                   |           |  | 0.014 U     | 0.011 U  | 0.012 U                     | 0.0081 U |            |            |            |            | 0.099 U      | 0.08 U        | 0.99 NJ      | 0.32 J        |
| PCB-1254 (AROCOR 1254)                   |           |  | 0.57        | 0.56     | 0.29 J                      | 0.0065 U |            |            |            |            | 5.3          | 19            | 0.091 U      | 0.091 U       |
| PCB-1260 (AROCOR 1260)                   |           |  | 0.016 U     | 0.012 U  | 0.014 U                     | 0.0095 U |            |            |            |            | 0.099 U      | 8.3 J         | 0.13 NJ      | 0.091 U       |
| PCB-1262 (AROCOR 1262)                   |           |  | 0.015 U     | 0.012 U  | 0.013 U                     | 0.009 U  |            |            |            |            | 0.099 U      | 0.08 U        | 0.091 U      | 0.091 U       |
| PCB-1268 (AROCOR 1268)                   |           |  | 0.021 U     | 0.016 U  | 0.018 U                     | 0.013 U  |            |            |            |            | 0.099 U      | 0.08 U        | 0.091 U      | 0.091 U       |
| PCBs (total)                             |           |  | 0.57        | 0.56     | 0.29                        | 0.011 U  |            |            |            |            | 5.3          | 27 J          | 1.1 NJ       | 0.32 J        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |  |             |          |                             |          |            |            |            |            |              |               |              |               |
| 2-METHYLNAPHTHALENE                      |           |  | --          | --       | --                          | 0.013 J  |            |            |            |            | 0.25 J       | 0.27          | 0.012        | 0.2           |
| ACENAPHTHENE                             |           |  | --          | --       | --                          | 0.0028 J |            |            |            |            | 1.2          | 1.1           | 0.034        | 0.46          |

Table 4-3a  
Summary of Results for Reach 4 Sediment Samples

| Analyte                                 | Sample ID |    | Sample Date |    | Sample Depth Range (ft BGS) |    | R4-037-C   | R4-038-C   | R4-119-T   | R4-135-C-Z1a | R4-135-C-Comp | R4-136-C-Z1a | R4-137-C-Comp |
|-----------------------------------------|-----------|----|-------------|----|-----------------------------|----|------------|------------|------------|--------------|---------------|--------------|---------------|
|                                         |           |    |             |    |                             |    | 11/17/2009 | 11/18/2009 | 11/17/2009 | 6/21/2010    | 6/21/2010     | 6/21/2010    | 6/21/2010     |
|                                         |           |    |             |    |                             |    | 0-0.9      | 0-0.4      | 0-0.5      | 0-0.5        | 0-0.8         | 0-0.4        | 0-0.7         |
| ACENAPHTHYLENE                          | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0025 J   | 0.067        | 0.055         | 0.023        | 0.15          |
| ANTHRACENE                              | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0043     | 2.2          | 2.3           | 0.049        | 1.2           |
| BENZO(A)ANTHRACENE                      | --        | -- | --          | -- | --                          | -- | --         | --         | 0.028      | 1.8          | 5.1           | 0.66         | 2.6           |
| BENZO(A)PYRENE                          | --        | -- | --          | -- | --                          | -- | --         | --         | 0.04 J     | 2.6          | 3.8           | 0.75         | 1.6           |
| BENZO(B)FLUORANTHENE                    | --        | -- | --          | -- | --                          | -- | --         | --         | 0.054      | 1.6          | 2.4           | 0.4          | 1.3           |
| BENZO(K)FLUORANTHENE                    | --        | -- | --          | -- | --                          | -- | --         | --         | 0.039      | 1.7          | 1.7           | 0.27         | 1.4           |
| CHRYSENE                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.036      | 2.8          | 5.4           | 0.9          | 3.7           |
| DIBENZ(A,H)ANTHRACENE                   | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0081     | 0.52         | 0.93 J        | 0.14         | 0.63          |
| FLUORANTHENE                            | --        | -- | --          | -- | --                          | -- | --         | --         | 0.046 J    | 3            | 4             | 0.42         | 4             |
| FLUORENE                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.004      | 0.91         | 0.82          | 0.036        | 0.56          |
| INDENO(1,2,3-C,D)PYRENE                 | --        | -- | --          | -- | --                          | -- | --         | --         | 0.034      | 0.63         | 1.7           | 0.24         | 1.2           |
| NAPHTHALENE                             | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0097 J   | 0.13         | 0.11          | 0.0096       | 0.19          |
| PENTACHLOROPHENOL                       | --        | -- | --          | -- | --                          | -- | --         | --         | 0.01       | --           | --            | --           | --            |
| PHENANTHRENE                            | --        | -- | --          | -- | --                          | -- | --         | --         | 0.032      | 3.3          | 6 J           | 0.23         | 1.9           |
| PYRENE                                  | --        | -- | --          | -- | --                          | -- | --         | --         | 0.047      | 4.2 J        | 6.6 J         | 0.74         | 3.8 J         |
| PAHs (total)                            | --        | -- | --          | -- | --                          | -- | --         | --         | 0.4        | 29           | 44            | 5.5          | 26            |
| <b>Pesticides by MC PEST (mg/kg)</b>    |           |    |             |    |                             |    |            |            |            |              |               |              |               |
| ALDRIN                                  | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00039 U  | --           | --            | --           | --            |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00062 U  | --           | --            | --           | --            |
| ALPHA-CHLORDANE                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00031 U  | --           | --            | --           | --            |
| ALPHA ENDOSULFAN                        | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00036 U  | --           | --            | --           | --            |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00082 U  | --           | --            | --           | --            |
| BETA ENDOSULFAN                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0021 U   | --           | --            | --           | --            |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00073 U  | --           | --            | --           | --            |
| DIELDRIN                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00073 U  | --           | --            | --           | --            |
| ENDOSULFAN SULFATE                      | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00073 U  | --           | --            | --           | --            |
| ENDRIN                                  | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00073 U  | --           | --            | --           | --            |
| ENDRIN ALDEHYDE                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0023 U   | --           | --            | --           | --            |
| ENDRIN KETONE                           | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0028 U   | --           | --            | --           | --            |
| GAMMA BHC (LINDANE)                     | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00059 U  | --           | --            | --           | --            |
| GAMMA-CHLORDANE                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00046 U  | --           | --            | --           | --            |
| HEPTACHLOR                              | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00075 U  | --           | --            | --           | --            |
| HEPTACHLOR EPOXIDE                      | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00052 U  | --           | --            | --           | --            |
| METHOXYCHLOR                            | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0023 U   | --           | --            | --           | --            |
| P,P'-DDD                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0016 J   | --           | --            | --           | --            |
| P,P'-DDE                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0064 U   | --           | --            | --           | --            |
| P,P'-DDT                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0027 U   | --           | --            | --           | --            |
| TOXAPHENE                               | --        | -- | --          | -- | --                          | -- | --         | --         | 0.12 U     | --           | --            | --           | --            |



Table 4-3a

Summary of Results for Reach 4 Sediment Samples

| Sample ID R4-138-C-Comp R4-139-C-Z1a R4-140-C-Z1a R4-141-C-Z1a R4-141-CR R4-141-C-Comp R4-142-C-Z1a R4-143-C-Z1a |         |           |         |           |         |           |         |           |         |           |  |
|------------------------------------------------------------------------------------------------------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|--|
| Sample Date                                                                                                      |         | 6/21/2010 |         | 6/22/2010 |         | 6/23/2010 |         | 6/23/2010 |         | 6/23/2010 |  |
| Sample Depth Range (ft BGS)                                                                                      |         | 0-0.4     |         | 0-0.3     |         | 0-0.3     |         | 0-0.5     |         | 0-0.5     |  |
| Analyte                                                                                                          |         |           |         |           |         |           |         |           |         |           |  |
| Metals by C200.7 (mg/kg)                                                                                         |         |           |         |           |         |           |         |           |         |           |  |
| ALUMINUM                                                                                                         | 9000    | 12000 J   | 11100   | 0.58 UJ   | 10400   | 11800 J   | 12400   | 10300     | 9750 J  |           |  |
| ANTIMONY                                                                                                         | 0.72 UJ | 1.1 UJ    | 0.58 UJ | 0.73 UJ   | 0.73 UJ | 0.86 UJ   | 0.77 UJ | 0.61 UJ   | 1.3 UJ  |           |  |
| ARSENIC                                                                                                          | 3.5 J   | 6.4 J     | 5.9 J   | 4.5 J     | 4.5 J   | 4.9 J     | 6.9 J   | 4.1 J     | 5.3 J   |           |  |
| BARIUM                                                                                                           | 85.1 J  | 163 J     | 217 J   | 143 J     | 143 J   | 198 J     | 192 J   | 101 J     | 133 J   |           |  |
| BERYLLIUM                                                                                                        | 0.35 J  | 0.37 J    | 0.59 J  | 0.34 J    | 0.34 J  | 0.36 J    | 0.29 J  | 0.43 J    | 0.32 J  |           |  |
| CADMIUM                                                                                                          | 1 J     | 4.4 J     | 1.4 J   | 2.5 J     | 2.5 J   | 2.9 J     | 2.7 J   | 2.2 J     | 1.9 J   |           |  |
| CALCIUM                                                                                                          | 11200   | 11500 J   | 17700   | 9630      | 9630    | 10400 J   | 22100   | 7520      | 16100 J |           |  |
| CHROMIUM                                                                                                         | 39.3    | 261 J     | 34.8    | 101       | 101     | 121 J     | 139     | 66.8      | 81.7 J  |           |  |
| COBALT                                                                                                           | 10.2    | 13.4 J    | 13.2    | 11.8      | 11.8    | 12.5 J    | 14.2    | 13.6      | 10.5 J  |           |  |
| COPPER                                                                                                           | 69.5    | 427 J     | 244     | 251       | 251     | 332 J     | 537     | 128       | 153 J   |           |  |
| IRON                                                                                                             | 16600   | 19300 J   | 22100   | 17300     | 17300   | 19600 J   | 23200   | 18700     | 17100 J |           |  |
| LEAD                                                                                                             | 107     | 810 J     | 103     | 408       | 408     | 491 J     | 888     | 456       | 244 J   |           |  |
| MAGNESIUM                                                                                                        | 5030    | 5450 J    | 8230    | 5060      | 5060    | 5860 J    | 6460    | 5790      | 5820 J  |           |  |
| MANGANESE                                                                                                        | 418     | 504 J     | 1290    | 362       | 362     | 402 J     | 426     | 650       | 623 J   |           |  |
| NICKEL                                                                                                           | 46.7    | 143 J     | 65.2    | 79.1      | 79.1    | 88.2 J    | 107     | 67        | 49.4 J  |           |  |
| POTASSIUM                                                                                                        | 1430    | 1830 J    | 1400    | 1570      | 1570    | 1800 J    | 1890    | 1630      | 1690 J  |           |  |
| SELENIUM                                                                                                         | 2.3 J   | 3.7 J     | 1.9 J   | 2.4 J     | 2.4 J   | 2.7 J     | 2.9 J   | 2.1 J     | 2.5 J   |           |  |
| SILVER                                                                                                           | 0.76 U  | 1.5 J     | 0.84 J  | 1.3 J     | 1.3 J   | 1.6 J     | 2.4     | 0.84 J    | 1.3 U   |           |  |
| SODIUM                                                                                                           | 125 J   | 202 J     | 130 J   | 168 J     | 168 J   | 182 J     | 213 J   | 121 J     | 346 J   |           |  |
| THALLIUM                                                                                                         | 0.55 U  | 0.83 U    | 0.45 U  | 0.56 U    | 0.56 U  | 0.66 U    | 0.59 U  | 0.47 U    | 0.98 U  |           |  |
| VANADIUM                                                                                                         | 15.5    | 27 J      | 18.1    | 18.8      | 18.8    | 22.4 J    | 26.8    | 17.4      | 17.6 J  |           |  |
| ZINC                                                                                                             | 411     | 3510 J    | 611     | 1230      | 1230    | 1500 J    | 1150    | 623       | 672 J   |           |  |
| Mercury by CV (mg/kg)                                                                                            |         |           |         |           |         |           |         |           |         |           |  |
| MERCURY                                                                                                          | 0.38    | 0.8 J     | 0.17    | 0.6       | 0.6     | 0.64 J    | 1.1     | 0.24      | 0.79 J  |           |  |
| PCBS by MC ARO (mg/kg)                                                                                           |         |           |         |           |         |           |         |           |         |           |  |
| PCB-1016 (AROCOR 1016)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1221 (AROCOR 1221)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1232 (AROCOR 1232)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1242 (AROCOR 1242)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1248 (AROCOR 1248)                                                                                           | 0.33 J  | 1.1 NJ    | 0.046 U | 0.45      | 0.45    | 0.37 J    | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1254 (AROCOR 1254)                                                                                           | 0.082 U | 0.42      | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 1.1     |           |  |
| PCB-1260 (AROCOR 1260)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.26 J    | 0.26 J  | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1262 (AROCOR 1262)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCB-1268 (AROCOR 1268)                                                                                           | 0.082 U | 0.096 U   | 0.046 U | 0.075 U   | 0.075 U | 0.079 U   | 0.069 U | 0.046 U   | 0.091 U |           |  |
| PCBs (total)                                                                                                     | 0.33 J  | 1.5 NJ    | 0.046 U | 0.71 J    | 0.71 J  | 0.37 J    | 0.069 U | 0.046 U   | 1.1     |           |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                         |         |           |         |           |         |           |         |           |         |           |  |
| 2-METHYLNAPHTHALENE                                                                                              | 7.5 J   | 0.036     | 0.0057  | 0.007     | 0.007   | 0.007     | 0.079   | 0.0061 U  | 0.028   |           |  |
| ACENAPHTHENE                                                                                                     | 13      | 0.28      | 0.015 U | 0.023     | 0.023   | 0.031     | 0.18    | 0.004     | 0.016   |           |  |

Table 4-3a  
Summary of Results for Reach 4 Sediment Samples

| Analyte                                 | Sample ID R4-138-C-Comp     |       | R4-139-C-Z1a |         | R4-140-C-Z1a |         | R4-141-C-Z1a |       | R4-141-CR |  | R4-141-C-Comp |  | R4-142-C-Z1a |  | R4-143-C-Z1a |  |
|-----------------------------------------|-----------------------------|-------|--------------|---------|--------------|---------|--------------|-------|-----------|--|---------------|--|--------------|--|--------------|--|
|                                         | Sample Date                 |       | 6/22/2010    |         | 6/23/2010    |         | 6/23/2010    |       | 6/23/2010 |  | 6/23/2010     |  | 6/23/2010    |  | 6/23/2010    |  |
|                                         | Sample Depth Range (ft BGS) |       | 0-0.4        |         | 0-0.3        |         | 0-0.5        |       | 0-0.5     |  | 0-0.8         |  | 0-0.2        |  | 0-0.3        |  |
| ACENAPHTHYLENE                          | 0.65                        | 0.073 | 0.004        | 0.046 J | 0.06 J       | 0.056 J | 0.0063       | 0.028 |           |  |               |  |              |  |              |  |
| ANTHRACENE                              | 5.2                         | 1.8   | 0.035        | 0.053 J | 0.13 J       | 0.32    | 0.013        | 0.065 |           |  |               |  |              |  |              |  |
| BENZO(A)ANTHRACENE                      | 7.5                         | 1.7   | 0.11         | 0.21 J  | 0.5 J        | 1       | 0.072        | 0.36  |           |  |               |  |              |  |              |  |
| BENZO(A)PYRENE                          | 6.8                         | 0.66  | 0.11         | 0.11 J  | 0.26 J       | 0.97    | 0.11         | 0.32  |           |  |               |  |              |  |              |  |
| BENZO(B)FLUORANTHENE                    | 5.2                         | 0.38  | 0.065        | 0.067 J | 0.25 J       | 0.72    | 0.08         | 0.32  |           |  |               |  |              |  |              |  |
| BENZO(K)FLUORANTHENE                    | 5.2                         | 0.82  | 0.035        | 0.095 J | 0.24 J       | 0.59    | 0.041        | 0.23  |           |  |               |  |              |  |              |  |
| CHRYSENE                                | 11 J                        | 2.2   | 0.15         | 0.29    | 0.65         | 1.1 J   | 0.11         | 0.49  |           |  |               |  |              |  |              |  |
| DIBENZ(A,H)ANTHRACENE                   | 2.7 J                       | 0.088 | 0.017        | 0.019   | 0.028        | 0.21    | 0.017        | 0.094 |           |  |               |  |              |  |              |  |
| FLUORANTHENE                            | 51 J                        | 4.7   | 0.19 U       | 0.24    | 0.49         | 1.6     | 0.12         | 0.8   |           |  |               |  |              |  |              |  |
| FLUORENE                                | 11 J                        | 0.32  | 0.046        | 0.035   | 0.024        | 0.12    | 0.0048       | 0.019 |           |  |               |  |              |  |              |  |
| INDENO(1,2,3-C,D)PYRENE                 | 4 J                         | 0.44  | 0.039        | 0.032   | 0.056        | 0.53    | 0.046        | 0.22  |           |  |               |  |              |  |              |  |
| NAPHTHALENE                             | 5.1                         | 0.013 | 0.0047       | 0.008   | 0.0087       | 0.055   | 0.0056       | 0.028 |           |  |               |  |              |  |              |  |
| PENTACHLOROPHENOL                       | -- J                        | --    | --           | -- J    | -- J         | --      | --           | --    |           |  |               |  |              |  |              |  |
| PHENANTHRENE                            | 73 J                        | 2.8   | 0.12         | 0.076 J | 0.25 J       | 1.1     | 0.028        | 0.22  |           |  |               |  |              |  |              |  |
| PYRENE                                  | 44 J                        | 3.2 J | 0.18         | 0.16 J  | 0.57 J       | 2 J     | 0.12         | 0.69  |           |  |               |  |              |  |              |  |
| PAHs (total)                            | 250                         | 20    | 1.1          | 1.5     | 3.7          | 11      | 0.86         | 4.2   |           |  |               |  |              |  |              |  |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                             |       |              |         |              |         |              |       |           |  |               |  |              |  |              |  |
| ALDRIN                                  | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ALPHA-CHLORDANE                         | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ALPHA ENDOSULFAN                        | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| BETA ENDOSULFAN                         | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| DIELDRIN                                | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ENDOSULFAN SULFATE                      | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ENDRIN                                  | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ENDRIN ALDEHYDE                         | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| ENDRIN KETONE                           | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| GAMMA BHC (LINDANE)                     | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| GAMMA-CHLORDANE                         | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| HEPTACHLOR                              | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| HEPTACHLOR EPOXIDE                      | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| METHOXYCHLOR                            | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| P,P'-DDD                                | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| P,P'-DDE                                | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| P,P'-DDT                                | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |
| TOXAPHENE                               | --                          | --    | --           | --      | --           | --      | --           | --    |           |  |               |  |              |  |              |  |

Table 4-3a  
Summary of Results for Reach 4 Sediment Samples

Key:

- BGS = Below ground surface (in this case below top of sediment surface).
- C = Hand-core creek location/sample.
- Comp = Hand-core creek composite sample.
- CR= Hand-core creek duplicate sample.
- ft = Feet.
- J = Estimated at the concentration listed.
- mg/Kg = Milligrams per kilogram.
- PCB = Polychlorinated biphenyl.
- SVOA = Semivolatile organic compounds analysis.
- T = Tributary location/sample.
- U = Non-detect.
- UJ = Non-detect/estimated.
- Z = Sample depth interval consecutively numbered.
- = Not submitted for this parameter.

Table 4-3b  
Summary of Results of Reach 4 Soil Samples

|                                                 | Sample ID<br>Sample Date<br>Sample Depth Range (ft BGS) | R4-111-W<br>11/16/2009<br>0-0.5 | R4-112-W<br>11/18/2009<br>0-0.5 | R4-126-H<br>11/16/2009<br>0-0.5 |
|-------------------------------------------------|---------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <b>Analyte</b>                                  |                                                         |                                 |                                 |                                 |
| <b>Metals by C200.7 (mg/kg)</b>                 |                                                         |                                 |                                 |                                 |
| ALUMINUM                                        |                                                         | 8420                            | 9360                            | 8100                            |
| ANTIMONY                                        |                                                         | 1.2 J                           | 0.88 U                          | 2.5 U                           |
| ARSENIC                                         |                                                         | 3.8 J+                          | 4.2                             | 4.1                             |
| BARIUM                                          |                                                         | 109                             | 115                             | 141                             |
| BERYLLIUM                                       |                                                         | 0.56 J+                         | 0.62 J+                         | 0.49 J                          |
| CADMIUM                                         |                                                         | 0.78                            | 0.055 UJ                        | 3.2                             |
| CALCIUM                                         |                                                         | 10600                           | 5910                            | 12200                           |
| CHROMIUM                                        |                                                         | 35.6                            | 62 J                            | 65.4                            |
| COBALT                                          |                                                         | 10.3                            | 10.7                            | 9.9 J                           |
| COPPER                                          |                                                         | 72.3                            | 110                             | 153                             |
| IRON                                            |                                                         | 20100                           | 20700                           | 19800                           |
| LEAD                                            |                                                         | 125                             | 170 J                           | 193                             |
| MAGNESIUM                                       |                                                         | 7360                            | 5030                            | 4350                            |
| MANGANESE                                       |                                                         | 546                             | 627                             | 266                             |
| NICKEL                                          |                                                         | 33.6                            | 41 J                            | 54.8                            |
| POTASSIUM                                       |                                                         | 1210                            | 1030                            | 1150 J                          |
| SELENIUM                                        |                                                         | 0.64 U                          | 1.5 J                           | 2.8 J                           |
| SILVER                                          |                                                         | 0.12 UJ                         | 0.099 UJ                        | 0.28 U                          |
| SODIUM                                          |                                                         | 2.7 UJ                          | 129 J-                          | 6.6 UJ                          |
| THALLIUM                                        |                                                         | 0.42 U                          | 0.35 U                          | 1 U                             |
| VANADIUM                                        |                                                         | 18.5                            | 19.9                            | 18.9                            |
| ZINC                                            |                                                         | 304                             | 444 J                           | 892                             |
| <b>Mercury by CV (mg/kg)</b>                    |                                                         |                                 |                                 |                                 |
| MERCURY                                         |                                                         | 0.76                            | 0.71                            | 0.5                             |
| <b>PCBS by MC ARO (mg/kg)</b>                   |                                                         |                                 |                                 |                                 |
| PCB-1016 (AROCLOR 1016)                         |                                                         | 0.013 U                         | 0.01 U                          | 0.024 U                         |
| PCB-1221 (AROCLOR 1221)                         |                                                         | 0.024 U                         | 0.019 U                         | 0.046 U                         |
| PCB-1232 (AROCLOR 1232)                         |                                                         | 0.0088 U                        | 0.0071 U                        | 0.017 U                         |
| PCB-1242 (AROCLOR 1242)                         |                                                         | 0.0056 U                        | 0.0045 U                        | 0.011 U                         |
| PCB-1248 (AROCLOR 1248)                         |                                                         | 0.0092 U                        | 0.0074 U                        | 0.018 U                         |
| PCB-1254 (AROCLOR 1254)                         |                                                         | 0.0074 U                        | 0.15                            | 0.15 J                          |
| PCB-1260 (AROCLOR 1260)                         |                                                         | 0.011 U                         | 0.0087 U                        | 0.021 U                         |
| PCB-1262 (AROCHLOR 1262)                        |                                                         | 0.01 U                          | 0.0083 U                        | 0.02 U                          |
| PCB-1268 (AROCLOR 1268)                         |                                                         | 0.014 U                         | 0.012 U                         | 0.027 U                         |
| PCBs (total)                                    |                                                         | 0.011 U                         | 0.15                            | 0.15                            |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |                                                         |                                 |                                 |                                 |
| 2-METHYLNAPHTHALENE                             |                                                         | --                              | 0.011                           | --                              |
| ACENAPHTHENE                                    |                                                         | --                              | 0.0082                          | --                              |
| ACENAPHTHYLENE                                  |                                                         | --                              | 0.014                           | --                              |
| ANTHRACENE                                      |                                                         | --                              | 0.03                            | --                              |
| BENZO(A)ANTHRACENE                              |                                                         | --                              | 0.26                            | --                              |
| BENZO(A)PYRENE                                  |                                                         | --                              | 0.15                            | --                              |
| BENZO(B)FLUORANTHENE                            |                                                         | --                              | 0.19                            | --                              |
| BENZO(K)FLUORANTHENE                            |                                                         | --                              | 0.15                            | --                              |
| CHRYSENE                                        |                                                         | --                              | 0.25 J                          | --                              |
| DIBENZ(A,H)ANTHRACENE                           |                                                         | --                              | 0.036 J                         | --                              |
| FLUORANTHENE                                    |                                                         | --                              | 0.27                            | --                              |
| FLUORENE                                        |                                                         | --                              | 0.012                           | --                              |

Table 4-3b  
Summary of Results of Reach 4 Soil Samples

|                                         | Sample ID                   | R4-111-W   | R4-112-W   | R4-126-H   |
|-----------------------------------------|-----------------------------|------------|------------|------------|
|                                         | Sample Date                 | 11/16/2009 | 11/18/2009 | 11/16/2009 |
|                                         | Sample Depth Range (ft BGS) | 0-0.5      | 0-0.5      | 0-0.5      |
| <b>Analyte</b>                          |                             |            |            |            |
| INDENO(1,2,3-C,D)PYRENE                 |                             | --         | 0.15       | --         |
| NAPHTHALENE                             |                             | --         | 0.011      | --         |
| PHENANTHRENE                            |                             | --         | 0.16 J     | --         |
| PYRENE                                  |                             | --         | 0.29       | --         |
| PAHs (total)                            |                             | --         | 2          | --         |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                             |            |            |            |
| ALDRIN                                  |                             | --         | 0.00036 U  | --         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                             | --         | 0.00057 U  | --         |
| ALPHA-CHLORDANE                         |                             | --         | 0.00028 U  | --         |
| ALPHA ENDOSULFAN                        |                             | --         | 0.00034 U  | --         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                             | --         | 0.00075 U  | --         |
| BETA ENDOSULFAN                         |                             | --         | 0.0053 J   | --         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                             | --         | 0.00067 U  | --         |
| DIELDRIN                                |                             | --         | 0.00067 U  | --         |
| ENDOSULFAN SULFATE                      |                             | --         | 0.0046 J   | --         |
| ENDRIN                                  |                             | --         | 0.00067 U  | --         |
| ENDRIN ALDEHYDE                         |                             | --         | 0.0021 U   | --         |
| ENDRIN KETONE                           |                             | --         | 0.0026 U   | --         |
| GAMMA BHC (LINDANE)                     |                             | --         | 0.00054 U  | --         |
| GAMMA-CHLORDANE                         |                             | --         | 0.0065 J   | --         |
| HEPTACHLOR                              |                             | --         | 0.00069 U  | --         |
| HEPTACHLOR EPOXIDE                      |                             | --         | 0.00048 U  | --         |
| METHOXYCHLOR                            |                             | --         | 0.0021 U   | --         |
| P,P'-DDD                                |                             | --         | 0.0015     | --         |
| P,P'-DDE                                |                             | --         | 0.0071 J   | --         |
| P,P'-DDT                                |                             | --         | 0.0077 U   | --         |
| TOXAPHENE                               |                             | --         | 0.11 U     | --         |

Key:

BGS = Below ground surface.  
ft = Feet.  
J = Estimated at the concentration listed.  
-H = Historical channel location/sample.  
mg/Kg = Milligrams per kilogram.  
PCB = Polychlorinated biphenyl.  
SVOA = Semivolatile organic compounds analysis.  
U = Non-detect.  
UJ = Non-detect/estimated.  
-W = Wetland location/sample.  
-- = Not submitted for this parameter.

Table 4-4a

Summary of Results of Reach 5 Sediment Samples

| Analyte                     | Location ID |             | R5-039-V    | R5-039-V    | R5-040-V     | R5-040-V     | R5-040-V    | R5-040-V    | R5-040-V    | R5-040-V  | R5-040-V  | R5-040-V  | R5-040-V  | R5-040-V  | R5-040-V  | R5-040-V  | R5-040-V  |
|-----------------------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                             | Sample ID   | Sample Date | R5-039-V-Z1 | R5-039-V-Z2 | R5-040-V-Z1a | R5-040-V-Z1b | R5-040-V-Z2 | R5-040-V-Z3 | R5-040-V-Z4 |           |           |           |           |           |           |           |           |
|                             | Sample Date | Sample Date | 5/21/2010   | 5/21/2010   | 5/20/2010    | 5/20/2010    | 5/20/2010   | 5/20/2010   | 5/20/2010   | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 |
| Sample Depth Range (ft BGS) |             | 0-1         | 1-1.9       | 0-0.5       | 0.5-1        | 1-2          | 2-3         | 3-4         |             |           |           |           |           |           |           |           |           |
| Metals by C200.7 (mg/kg)    |             |             |             |             |              |              |             |             |             |           |           |           |           |           |           |           |           |
| ALUMINUM                    |             | 8310        | 7980 J      | 14300 J     | 14800 J      | 13100 J      | 13600 J     | 12600 J     |             |           |           |           |           |           |           |           |           |
| ANTIMONY                    |             | 0.25 UJ     | 0.31 UJ     | 0.97 UJ     | 0.93 UJ      | 0.82 UJ      | 0.77 UJ     | 0.74 UJ     |             |           |           |           |           |           |           |           |           |
| ARSENIC                     |             | 1.8 J       | 2 J         | 20.4 J      | 18.4 J       | 10.9 J       | 11.2 J      | 10.7 J      |             |           |           |           |           |           |           |           |           |
| BARIUM                      |             | 64.7 J      | 72.8 J      | 496 J       | 602 J        | 474 J        | 667 J       | 971 J       |             |           |           |           |           |           |           |           |           |
| BERYLLIUM                   |             | 0.02 UJ     | 0.025 UJ    | 0.52 J      | 0.57 J       | 0.51 J       | 0.54 J      | 0.5 J       |             |           |           |           |           |           |           |           |           |
| CADMIUM                     |             | 0.0095 UJ   | 0.012 UJ    | 1.7 J       | 1.9 J        | 1.7 J        | 1.8 J       | 1.4 J       |             |           |           |           |           |           |           |           |           |
| CALCIUM                     |             | 6450        | 8200 J      | 10400 J     | 10100 J      | 10300 J      | 10600 J     | 11400 J     |             |           |           |           |           |           |           |           |           |
| CHROMIUM                    |             | 33.9        | 57.1 J      | 89.1 J      | 143 J        | 161 J        | 191 J       | 128 J       |             |           |           |           |           |           |           |           |           |
| COBALT                      |             | 9.2 J       | 0.063 UJ    | 0.11 UJ     | 12 J         | 11.1 J       | 11.4 J      | 10.7 J      |             |           |           |           |           |           |           |           |           |
| COPPER                      |             | 55.9        | 86.4 J      | 206 J       | 248 J        | 208 J        | 238 J       | 161 J       |             |           |           |           |           |           |           |           |           |
| IRON                        |             | 14100       | 13900 J     | 23400 J     | 23900 J      | 20700 J      | 21200 J     | 19700 J     |             |           |           |           |           |           |           |           |           |
| LEAD                        |             | 188 J       | 167 J       | 430 J       | 543 J        | 545 J        | 566 J       | 419 J       |             |           |           |           |           |           |           |           |           |
| MAGNESIUM                   |             | 3910        | 4500 J      | 8480 J      | 8190 J       | 6670 J       | 6980 J      | 6920 J      |             |           |           |           |           |           |           |           |           |
| MANGANESE                   |             | 249         | 409 J       | 295 J       | 277 J        | 298 J        | 304 J       | 294 J       |             |           |           |           |           |           |           |           |           |
| NICKEL                      |             | 40.4        | 39.5 J      | 30.4 J      | 30 J         | 25.6 J       | 26.5 J      | 23.5 J      |             |           |           |           |           |           |           |           |           |
| POTASSIUM                   |             | 1070        | 1190 J      | 2170 J      | 2010 J       | 1570 J       | 1630 J      | 1540 J      |             |           |           |           |           |           |           |           |           |
| SELENIUM                    |             | 0.63 U      | 0.89 J      | 2.9 J       | 3.4 J        | 2.8 J        | 3.1 J       | 2.7 J       |             |           |           |           |           |           |           |           |           |
| SILVER                      |             | 0.057 U     | 0.19 J      | 2.1 J       | 2.6 J        | 2 J          | 2.6         | 2.1         |             |           |           |           |           |           |           |           |           |
| SODIUM                      |             | 5.8 UJ      | 7.3 UJ      | 619 J       | 564 J        | 6.1 U        | 5.8 U       | 5.5 U       |             |           |           |           |           |           |           |           |           |
| THALLIUM                    |             | 0.22 U      | 0.27 UJ     | 0.74 U      | 0.71 U       | 0.63 U       | 0.6 U       | 0.57 U      |             |           |           |           |           |           |           |           |           |
| VANADIUM                    |             | 12.1 J      | 13.3 J      | 23.2 J      | 23.7 J       | 21 J         | 22.2 J      | 20 J        |             |           |           |           |           |           |           |           |           |
| ZINC                        |             | 319 J       | 412 J       | 606 J       | 594 J        | 445 J        | 467 J       | 355 J       |             |           |           |           |           |           |           |           |           |
| Mercury by CV (mg/kg)       |             |             |             |             |              |              |             |             |             |           |           |           |           |           |           |           |           |
| MERCURY                     |             | 0.24        | 0.8 J       | 4.2 J       | 7.8 J        | 10.5 J       | 11.1        | 9.2         |             |           |           |           |           |           |           |           |           |
| PCBS by MC ARO (mg/kg)      |             |             |             |             |              |              |             |             |             |           |           |           |           |           |           |           |           |
| PCB-1016 (AROCOR 1016)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1221 (AROCOR 1221)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1232 (AROCOR 1232)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1242 (AROCOR 1242)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1248 (AROCOR 1248)      |             | 0.011 U     | 0.48 J      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1254 (AROCOR 1254)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1260 (AROCOR 1260)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1262 (AROCOR 1262)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCB-1268 (AROCOR 1268)      |             | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |
| PCBs (total)                |             | 0.011 U     | 0.48 J      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     |             |           |           |           |           |           |           |           |           |

Key at the end of Table

Table Page 1 of 19 Pages







Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                                  | Location ID                 |              | R5-041-V     | R5-041-V     | R5-041-V    | R5-041-V    | R5-041-V    | R5-041-V     | R5-041-V     | R5-041-V | R5-041-V | R5-041-V | R5-041-V | R5-041-V | R5-041-V | R5-041-V | R5-041-V | R5-041-V |
|------------------------------------------|-----------------------------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                                          | Sample ID                   | R5-040-V-Z5a | R5-041-V-Z1a | R5-041-V-Z1b | R5-041-V-Z2 | R5-041-V-Z3 | R5-041-V-Z4 | R5-041-V-Z5a | R5-041-V-Z5b |          |          |          |          |          |          |          |          |          |
|                                          | Sample Date                 | 5/20/2010    | 5/24/2010    | 5/24/2010    | 5/24/2010   | 5/24/2010   | 5/24/2010   | 5/24/2010    | 5/24/2010    |          |          |          |          |          |          |          |          |          |
|                                          | Sample Depth Range (ft BGS) | 4.5-5        | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         | 4-5          | 5-6          |          |          |          |          |          |          |          |          |          |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |              |              |              |             |             |             |              |              |          |          |          |          |          |          |          |          |          |
| 2-METHYLNAPHTHALENE                      | 0.002 U                     | 0.059        | 0.0017 U     | 0.1          | 0.033       | 0.02        | 0.013 J     | 0.007        |              |          |          |          |          |          |          |          |          |          |
| ACENAPHTHENE                             | 0.002 U                     | 0.065        | 0.11         | 0.13         | 0.033       | 0.013       | 0.015       | 0.011        |              |          |          |          |          |          |          |          |          |          |
| ACENAPHTHYLENE                           | 0.0089                      | 0.21         | 0.2          | 0.19         | 0.038       | 0.02        | 0.018       | 0.0097       |              |          |          |          |          |          |          |          |          |          |
| ANTHRACENE                               | 0.002 U                     | 0.31         | 0.47         | 0.38         | 0.096       | 0.043       | 0.043       | 0.028        |              |          |          |          |          |          |          |          |          |          |
| BENZO(A)ANTHRACENE                       | 0.002 U                     | 0.96         | 1.2          | 1.1          | 0.38        | 0.21        | 0.17 J      | 0.097        |              |          |          |          |          |          |          |          |          |          |
| BENZO(A)PYRENE                           | 0.002 U                     | 0.86         | 0.83         | 0.81         | 0.22        | 0.11        | 0.16        | 0.065        |              |          |          |          |          |          |          |          |          |          |
| BENZO(B)FLUORANTHENE                     | 0.002 UJ                    | 0.77         | 0.6          | 0.59         | 0.2         | 0.11        | 0.15        | 0.054        |              |          |          |          |          |          |          |          |          |          |
| BENZO(K)FLUORANTHENE                     | 0.002 U                     | 0.53         | 0.85         | 0.62         | 0.12        | 0.075       | 0.11        | 0.051        |              |          |          |          |          |          |          |          |          |          |
| CHRYSENE                                 | 0.002 U                     | 1.3          | 1.4          | 1.5          | 0.49        | 0.27        | 0.21 J      | 0.12         |              |          |          |          |          |          |          |          |          |          |
| DIBENZ(A,H)ANTHRACENE                    | 0.002 U                     | 0.18         | 0.3          | 0.3          | 0.076       | 0.049       | 0.046       | 0.023        |              |          |          |          |          |          |          |          |          |          |
| FLUORANTHENE                             | 0.0041                      | 1.5          | 1.8          | 1.9          | 0.66        | 0.36        | 0.27 J      | 0.19         |              |          |          |          |          |          |          |          |          |          |
| FLUORENE                                 | 0.002 U                     | 0.16         | 0.2          | 0.2          | 0.057       | 0.028       | 0.025       | 0.022        |              |          |          |          |          |          |          |          |          |          |
| INDENO(1,2,3-C,D)PYRENE                  | 0.002 U                     | 0.48         | 0.56         | 0.42         | 0.14        | 0.074       | 0.1         | 0.045        |              |          |          |          |          |          |          |          |          |          |
| NAPHTHALENE                              | 0.002 U                     | 0.05         | 0.071        | 0.07         | 0.054       | 0.045       | 0.023       | 0.0089       |              |          |          |          |          |          |          |          |          |          |
| PHENANTHRENE                             | 0.002 U                     | 0.72         | 0.95         | 0.96         | 0.37        | 0.19        | 0.15 J      | 0.11         |              |          |          |          |          |          |          |          |          |          |
| PYRENE                                   | 0.0064                      | 1.6          | 1.9          | 2            | 0.61        | 0.32        | 0.25 J      | 0.15         |              |          |          |          |          |          |          |          |          |          |
| PAHs (total)                             | 0.019                       | 11           | 12           | 12           | 3.7         | 2           | 1.9 J       | 1            |              |          |          |          |          |          |          |          |          |          |

Table 4-4a

Summary of Results of Reach 5 Sediment Samples

| Analyte                  | Location ID                 |              | R5-041-V     |         | R5-041-V     |          | R5-042-V     |         | R5-042-V    |         | R5-042-V    |          | R5-042-V    |         | R5-042-V     |          | R5-042-V |  |
|--------------------------|-----------------------------|--------------|--------------|---------|--------------|----------|--------------|---------|-------------|---------|-------------|----------|-------------|---------|--------------|----------|----------|--|
|                          | Sample ID                   | R5-041-V-Z6a | R5-041-V-Z6b |         | R5-042-V-Z1A |          | R5-042-V-Z1b |         | R5-042-V-Z2 |         | R5-042-V-Z3 |          | R5-042-V-Z4 |         | R5-042-V-Z5a |          |          |  |
|                          | Sample Date                 | 5/24/2010    | 5/24/2010    |         | 5/20/2010    |          | 5/20/2010    |         | 5/20/2010   |         | 5/20/2010   |          | 5/20/2010   |         | 5/20/2010    |          |          |  |
|                          | Sample Depth Range (ft BGS) | 6-7          | 7-7.5        |         | 0-0.5        |          | 0.5-1        |         | 1-2         |         | 2-3         |          | 3-4         |         | 40638-5      |          |          |  |
| Metals by C200.7 (mg/kg) |                             |              |              |         |              |          |              |         |             |         |             |          |             |         |              |          |          |  |
| ALUMINUM                 | 14200                       | 12800        | 0.25 UJ      | 0.18 UJ | 0.98 UJ      | 16200 J  | 15100 J      | 13400 J | 10600 J     | 12400 J | 13600 J     | 12400 J  | 10600 J     | 13600 J | 12400 J      | 10600 J  | 13600 J  |  |
| ANTIMONY                 | 4 J                         | 2.2 J        | 13.4 J       | 14.1 J  | 8.3 J        | 7.2 J    | 9.3 J        | 3.7 J   | 111 J       | 111 J   | 107 J       | 145 J    | 107 J       | 111 J   | 107 J        | 145 J    | 107 J    |  |
| ARSENIC                  | 126 J                       | 128 J        | 0.02 UJ      | 0.61 J  | 0.57 J       | 0.52 J   | 0.51 J       | 0.41 J  | 0.51 J      | 0.49 J  | 0.51 J      | 0.41 J   | 0.51 J      | 0.49 J  | 0.51 J       | 0.41 J   | 0.51 J   |  |
| BERYLLIUM                | 0.0096 UJ                   | 0.0067 UJ    | 1.9 J        | 1.9 J   | 1.3 J        | 0.054 UJ | 0.048 UJ     | 0.93 J  | 0.93 J      | 0.93 J  | 0.048 UJ    | 0.048 UJ | 0.93 J      | 0.93 J  | 0.048 UJ     | 0.048 UJ | 0.93 J   |  |
| CADMIUM                  | 10200                       | 2140         | 19.9         | 19.5    | 84.7 J       | 122 J    | 97.9 J       | 32.2 J  | 18.3 J      | 18.2 J  | 12.4 J      | 11.9 J   | 12.4 J      | 11.9 J  | 12.4 J       | 11.9 J   | 12.4 J   |  |
| CHROMIUM                 | 11.8 J                      | 14.3 J       | 0.11 UJ      | 0.11 UJ | 0.11 UJ      | 0.1 UJ   | 0.1 UJ       | 0.12 UJ | 0.12 UJ     | 0.12 UJ | 12.4 J      | 12.4 J   | 0.12 UJ     | 0.12 UJ | 12.4 J       | 12.4 J   | 0.12 UJ  |  |
| COBALT                   | 23.4                        | 4.8          | 165 J        | 217 J   | 131 J        | 56.2 J   | 28.8 J       | 23.6 J  | 23.6 J      | 23.6 J  | 28.8 J      | 56.2 J   | 28.8 J      | 23.6 J  | 28.8 J       | 56.2 J   | 28.8 J   |  |
| COPPER                   | 21500                       | 24800        | 39.7 J       | 6.1 J   | 353 J        | 532 J    | 335 J        | 178 J   | 53.7 J      | 33.7 J  | 178 J       | 53.7 J   | 178 J       | 53.7 J  | 178 J        | 53.7 J   | 178 J    |  |
| LEAD                     | 6890                        | 6170         | 475          | 427     | 263 J        | 283 J    | 269 J        | 231 J   | 407 J       | 497 J   | 231 J       | 407 J    | 231 J       | 407 J   | 231 J        | 407 J    | 231 J    |  |
| MAGNESIUM                | 26.6                        | 28.5         | 31.1 J       | 27.7 J  | 26.8 J       | 21.6 J   | 26.5 J       | 25.7 J  | 25.7 J      | 25.7 J  | 26.5 J      | 21.6 J   | 26.5 J      | 25.7 J  | 26.5 J       | 21.6 J   | 26.5 J   |  |
| MANGANESE                | 1790                        | 1720         | 0.65 J       | 0.44 U  | 3 J          | 3.2 J    | 2.5 J        | 2.3 J   | 2.3 J       | 2.3 J   | 2.3 J       | 2.9 J    | 2.3 J       | 2.3 J   | 2.3 J        | 2.9 J    | 2.3 J    |  |
| NICKEL                   | 0.65 J                      | 0.44 U       | 1.9 J        | 2.2 J   | 1.5 J        | 1.1 U    | 0.97 U       | 0.68 U  | 0.68 U      | 0.68 U  | 0.97 U      | 1.1 U    | 0.97 U      | 0.68 U  | 0.97 U       | 1.1 U    | 0.68 U   |  |
| POTASSIUM                | 0.057 U                     | 0.04 U       | 606 J        | 592 J   | 5.8 U        | 568 J    | 501 J        | 4.8 U   | 4.8 U       | 4.8 U   | 568 J       | 501 J    | 4.8 U       | 4.8 U   | 568 J        | 501 J    | 4.8 U    |  |
| SELENIUM                 | 5.9 UJ                      | 4.1 UJ       | 0.22 U       | 0.15 U  | 0.75 U       | 0.73 U   | 0.6 U        | 0.81 U  | 0.81 U      | 0.81 U  | 0.71 U      | 0.71 U   | 0.81 U      | 0.71 U  | 0.71 U       | 0.81 U   | 0.71 U   |  |
| SILVER                   | 0.22 U                      | 0.15 U       | 21.2 J       | 21.6 J  | 24.8 J       | 21.3 J   | 20.9 J       | 16.3 J  | 19.3 J      | 20.5 J  | 19.3 J      | 16.3 J   | 19.3 J      | 20.5 J  | 19.3 J       | 16.3 J   | 19.3 J   |  |
| SODIUM                   | 111 J                       | 67.8 J       | 462 J        | 509 J   | 287 J        | 172 J    | 126 J        | 103 J   | 103 J       | 103 J   | 126 J       | 103 J    | 126 J       | 103 J   | 126 J        | 103 J    | 103 J    |  |
| THALLIUM                 |                             |              |              |         |              |          |              |         |             |         |             |          |             |         |              |          |          |  |
| VANADIUM                 |                             |              |              |         |              |          |              |         |             |         |             |          |             |         |              |          |          |  |
| ZINC                     |                             |              |              |         |              |          |              |         |             |         |             |          |             |         |              |          |          |  |
| Mercury by CV (mg/kg)    |                             |              |              |         |              |          |              |         |             |         |             |          |             |         |              |          |          |  |
| MERCURY                  | 0.28                        | 0.047 U      | 4 J          | 6.1 J   | 8.1          | 4.4 J    | 0.4 J        | 0.27    | 0.27        | 0.27    | 0.4 J       | 0.27     | 0.27        | 0.27    | 0.4 J        | 0.27     | 0.27     |  |
| PCBS by MC ARO (mg/kg)   |                             |              |              |         |              |          |              |         |             |         |             |          |             |         |              |          |          |  |
| PCB-1016 (AROCOR 1016)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1221 (AROCOR 1221)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1232 (AROCOR 1232)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1242 (AROCOR 1242)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1248 (AROCOR 1248)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1254 (AROCOR 1254)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1260 (AROCOR 1260)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1262 (AROCOR 1262)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCB-1268 (AROCOR 1268)   | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |
| PCBs (total)             | 0.011 U                     | 0.011 U      | 0.011 U      | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U      | 0.011 U | 0.011 U     | 0.011 U | 0.011 U     | 0.011 U  | 0.011 U     | 0.011 U | 0.011 U      | 0.011 U  | 0.011 U  |  |

Key at the end of Table

Table Page 5 of 19 Pages

## Summary of Results of Reach 5 Sediment Samples

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Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                     | Location ID |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-043-V    |             | R5-044-V    |             |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                             | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date | Sample ID   | Sample Date |
|                             | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date | Sample Date |
| Sample Depth Range (ft BGS) | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         | 0-1         |             |
| Metals by C200.7 (mg/kg)    |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| ALUMINUM                    | 11500 J     | 15100 J     | 12100 J     | 10800 J     | 14000 J     | 13200       | 11800       | 18200 J     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| ANTIMONY                    | 0.98 UJ     | 1.2 UJ      | 1 UJ        | 0.8 UJ      | 0.84 UJ     | 0.75 UJ     | 0.45 UJ     | 1.4 UR      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| ARSENIC                     | 12.9 J      | 6.3 J       | 11.2 J      | 10.7 J      | 14.3 J      | 10.9 J      | 4.3 J       | 8.7 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| BARIUM                      | 225 J       | 177 J       | 387 J       | 477 J       | 611 J       | 919 J       | 158 J       | 217 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| BERYLLIUM                   | 0.41 J      | 0.5 J       | 0.45 J      | 0.37 J      | 0.54 J      | 0.51 J      | 0.43 J      | 0.56 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| CADMIUM                     | 2.2 J       | 2.7 J       | 1.7 J       | 1.6 J       | 1.7 J       | 1.5 J       | 0.73 J      | 4.8 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| CALCIUM                     | 9410 J      | 14500 J     | 13300 J     | 6580 J      | 9150 J      | 10400 J     | 6930 J      | 15900 J     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| CHROMIUM                    | 107 J       | 116 J       | 102 J       | 123 J       | 167 J       | 182         | 18.2        | 211 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| COBALT                      | 0.11 UJ     | 0.13 UJ     | 0.11 UJ     | 0.088 UJ    | 11.6 J      | 12.4 J      | 12.3 J      | 16.2 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| COPPER                      | 237 J       | 274 J       | 226 J       | 219 J       | 211 J       | 191 J       | 18.7 J      | 339 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| IRON                        | 17700 J     | 22800 J     | 21100 J     | 17900 J     | 21900 J     | 21500       | 20000       | 26600 J     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| LEAD                        | 362 J       | 384 J       | 419 J       | 526 J       | 485 J       | 429 J       | 26.9 J      | 500 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| MAGNESIUM                   | 5710 J      | 7110 J      | 6260 J      | 4950 J      | 6740 J      | 6760        | 6400        | 7750 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| MANGANESE                   | 388 J       | 662 J       | 343 J       | 204 J       | 296 J       | 311 J       | 398 J       | 452 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| NICKEL                      | 57.5 J      | 60.5 J      | 36.7 J      | 31.7 J      | 27.7 J      | 31.3 J      | 25.5 J      | 105 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| POTASSIUM                   | 1540 J      | 1980 J      | 1620 J      | 1480 J      | 1770 J      | 1610        | 989         | 2250 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| SELENIUM                    | 2.9 J       | 3.5 J       | 3 J         | 0.69 U      | 0.73 U      | 0.65 U      | 0.39 U      | 5.3 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| SILVER                      | 1.4 J       | 1.7 J       | 1.8 J       | 2.1 J       | 2 J         | 2.5         | 0.51 J      | 2.2 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| SODIUM                      | 587 J       | 798 J       | 617 J       | 5.9 U       | 6.2 U       | 5.6 U       | 3.4 U       | 871 J       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| THALLIUM                    | 0.75 U      | 0.93 U      | 0.8 U       | 0.61 U      | 0.65 U      | 0.58 U      | 0.35 U      | 1.1 UR      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| VANADIUM                    | 19.5 J      | 24 J        | 21.9 J      | 17.1 J      | 22.5 J      | 21 J        | 18.5 J      | 36.4 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| ZINC                        | 881 J       | 892 J       | 695 J       | 471 J       | 420 J       | 426 J       | 74.5 J      | 1610 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Mercury by CV (mg/kg)       |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| MERCURY                     | 2.3 J       | 0.69 J      | 6.9 J       | 7.7 J       | 8 J         | 8.3         | 0.33        | 0.39 J      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCBS by MC ARO (mg/kg)      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1016 (AROCOR 1016)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1221 (AROCOR 1221)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1232 (AROCOR 1232)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1242 (AROCOR 1242)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1248 (AROCOR 1248)      | 0.11 J      | 0.19 J      | 0.011 U     | 0.011 U     | 0.14 J      | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1254 (AROCOR 1254)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1260 (AROCOR 1260)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1262 (AROCOR 1262)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCB-1268 (AROCOR 1268)      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |
| PCBs (total)                | 0.11 J      | 0.19 J      | 0.011 U     | 0.011 U     | 0.14 J      | 0.011 U     | 0.011 UJ    | 0.011 U     |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |             |

Table 4-4a

Summary of Results of Reach 5 Sediment Samples

| Analyte                                  | Sample Depth Range (ft BGS) |             |             |              |             |             |             |              |              |              |
|------------------------------------------|-----------------------------|-------------|-------------|--------------|-------------|-------------|-------------|--------------|--------------|--------------|
|                                          | Location ID                 |             | R5-043-V    |              | R5-043-V    |             | R5-043-V    |              | R5-043-V     |              |
|                                          | Sample ID                   | Sample Date | R5-043-V-Z1 | R5-043-V-Z1P | R5-043-V-Z2 | R5-043-V-Z3 | R5-043-V-Z4 | R5-043-V-Z5a | R5-043-V-Z5b | R5-044-V-Z1a |
|                                          |                             |             | 5/20/2010   | 5/20/2010    | 5/20/2010   | 5/20/2010   | 5/20/2010   | 5/20/2010    | 5/20/2010    | 5/20/2010    |
|                                          |                             |             | 0-1         | 0-1          | 1-2         | 2-3         | 3-4         | 4-4.5        | 40638-5      | 0-0.5        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |             |             |              |             |             |             |              |              |              |
| 2-METHYLNAPHTHALENE                      |                             |             | 0.047       | 0.0017 U     | 0.011       | 0.0017 U    | 0.0017 U    | 0.0017 U     | 0.0017 U     | 0.0017 U     |
| ACENAPHTHENE                             |                             |             | 0.2         | 0.0017 U     | 0.064       | 0.0089      | 0.0017 U    | 0.0017 U     | 0.0017 U     | 0.0017 U     |
| ACENAPHTHYLENE                           |                             |             | 0.034       | 0.019        | 0.03        | 0.017       | 0.0017 U    | 0.0017 U     | 0.0017 U     | 0.016        |
| ANTHRACENE                               |                             |             | 0.29        | 0.025        | 0.14        | 0.025       | 0.011       | 0.01         | 0.0017 U     | 0.02         |
| BENZO(A)ANTHRACENE                       |                             |             | 0.29        | 0.099        | 0.3         | 0.09        | 0.048       | 0.041        | 0.0045       | 0.15         |
| BENZO(A)PYRENE                           |                             |             | 0.2         | 0.14         | 0.17        | 0.074       | 0.03        | 0.028        | 0.0017 U     | 0.13         |
| BENZO(B)FLUORANTHENE                     |                             |             | 0.15        | 0.15         | 0.13        | 0.075       | 0.031       | 0.027        | 0.0038 J     | 0.11         |
| BENZO(K)FLUORANTHENE                     |                             |             | 0.14        | 0.091        | 0.12        | 0.054       | 0.02        | 0.02         | 0.0017 U     | 0.086        |
| CHRYSENE                                 |                             |             | 0.37        | 0.13         | 0.32        | 0.095       | 0.055       | 0.044        | 0.0053       | 0.21         |
| DIBENZ(A,H)ANTHRACENE                    |                             |             | 0.062       | 0.041        | 0.046       | 0.024       | 0.01        | 0.0097       | 0.0017 U     | 0.044        |
| FLUORANTHENE                             |                             |             | 0.61        | 0.18         | 0.61        | 0.11        | 0.061       | 0.056        | 0.0058       | 0.34         |
| FLUORENE                                 |                             |             | 0.19        | 0.0099       | 0.045       | 0.012       | 0.0068 J    | 0.0017 U     | 0.0017 U     | 0.013        |
| INDENO(1,2,3-C,D)PYRENE                  |                             |             | 0.11        | 0.094        | 0.084       | 0.044       | 0.021       | 0.018        | 0.0017 U     | 0.085        |
| NAPHTHALENE                              |                             |             | 0.035       | 0.0017 U     | 0.011       | 0.011       | 0.0078      | 0.0017 U     | 0.0017 U     | 0.0017 U     |
| PHENANTHRENE                             |                             |             | 0.91        | 0.08         | 0.35 J      | 0.078       | 0.041       | 0.032        | 0.0042       | 0.088        |
| PYRENE                                   |                             |             | 0.58        | 0.18         | 0.44        | 0.11        | 0.068       | 0.059        | 0.0072       | 0.27         |
| PAHs (total)                             |                             |             | 4.3         | 1.4          | 3 J         | 0.88        | 0.44 J      | 0.37         | 0.031 J      | 1.7          |





Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                  | Location ID |                             | R5-045-V  |              | R5-046-V     |              | R5-046-V    |             | R5-046-V    |              | R5-046-V  |           | R5-046-V  |           | R5-046-V  |           |
|--------------------------|-------------|-----------------------------|-----------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                          | Sample ID   |                             | R5-045-VR | R5-045-V-Z5a | R5-046-V-Z1a | R5-046-V-Z1b | R5-046-V-Z2 | R5-046-V-Z3 | R5-046-V-Z4 | R5-046-V-Z5a |           |           |           |           |           |           |
|                          | Sample Date | Sample Depth Range (ft BGS) | 5/20/2010 | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010   | 5/20/2010   | 5/20/2010   | 5/20/2010    | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 | 5/20/2010 |
|                          |             |                             | 3-4       | 40638-5      | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         | 4-5          |           |           |           |           |           |           |
| Metals by C200.7 (mg/kg) |             |                             |           |              |              |              |             |             |             |              |           |           |           |           |           |           |
| ALUMINUM                 |             | 10300                       |           | 11700        | 14600 J      | 16800 J      | 14200 J     | 15800 J     | 14000 J     | 13700 J      |           |           |           |           |           |           |
| ANTIMONY                 |             | 0.73 UJ                     |           | 0.69 UJ      | 1.3 UJ       | 1 UJ         | 0.86 UJ     | 0.84 UJ     | 0.82 UJ     | 0.54 J       |           |           |           |           |           |           |
| ARSENIC                  |             | 4 J                         |           | 4.3 J        | 14.8 J       | 17.8 J       | 11.3 J      | 16.2 J      | 33.2 J      | 11.5         |           |           |           |           |           |           |
| BARIUM                   |             | 86.9 J                      |           | 128 J        | 250 J        | 344 J        | 321 J       | 404 J       | 600 J       | 505          |           |           |           |           |           |           |
| BERYLLIUM                |             | 0.41 J                      |           | 0.47 J       | 0.49 J       | 0.55 J       | 0.52 J      | 0.61 J      | 0.52 J      | 0.64 J       |           |           |           |           |           |           |
| CADMIUM                  |             | 0.037 UJ                    |           | 0.035 UJ     | 7.9 J        | 7.9 J        | 2.7 J       | 3.2 J       | 2 J         | 1.9          |           |           |           |           |           |           |
| CALCIUM                  |             | 8590 J                      |           | 9490 J       | 5570 J       | 7290 J       | 11900 J     | 16800 J     | 9300 J      | 8840         |           |           |           |           |           |           |
| CHROMIUM                 |             | 15.3                        |           | 16.5         | 547 J        | 769 J        | 66.2 J      | 82.6 J      | 104 J       | 92.9         |           |           |           |           |           |           |
| COBALT                   |             | 10.2 J                      |           | 11.2 J       | 17.4 J       | 17.3 J       | 11.7 J      | 13.9 J      | 11.2 J      | 10.4 J       |           |           |           |           |           |           |
| COPPER                   |             | 22.1 J                      |           | 21.8 J       | 1020 J       | 1110 J       | 313 J       | 259 J       | 245 J       | 180          |           |           |           |           |           |           |
| IRON                     |             | 16600                       |           | 16600        | 21400 J      | 23900 J      | 22200 J     | 26300 J     | 21600 J     | 22300        |           |           |           |           |           |           |
| LEAD                     |             | 31.7 J                      |           | 23.8 J       | 559 J        | 763 J        | 369 J       | 401 J       | 439 J       | 413          |           |           |           |           |           |           |
| MAGNESIUM                |             | 5180                        |           | 5560         | 4880 J       | 6400 J       | 8800 J      | 10200 J     | 7230 J      | 6960         |           |           |           |           |           |           |
| MANGANESE                |             | 404 J                       |           | 389 J        | 179 J        | 225 J        | 269 J       | 335 J       | 247 J       | 260          |           |           |           |           |           |           |
| NICKEL                   |             | 21 J                        |           | 23.1 J       | 180 J        | 144 J        | 42.5 J      | 38.7 J      | 29.2 J      | 26.9 J       |           |           |           |           |           |           |
| POTASSIUM                |             | 1420                        |           | 1490         | 1670 J       | 1910 J       | 1800 J      | 2190 J      | 1980 J      | 1850 J       |           |           |           |           |           |           |
| SELENIUM                 |             | 0.64 U                      |           | 0.6 U        | 4.5 J        | 4.1 J        | 0.75 U      | 3.6 J       | 0.72 U      | 0.96 J       |           |           |           |           |           |           |
| SILVER                   |             | 0.77 U                      |           | 0.72 U       | 6.1 J        | 4.4 J        | 2.1 J       | 2.5 J       | 2.5 J       | 0.068 UJ     |           |           |           |           |           |           |
| SODIUM                   |             | 5.4 U                       |           | 5.1 U        | 1160 J       | 965 J        | 771 J       | 703 J       | 653 J       | 246 J        |           |           |           |           |           |           |
| THALLIUM                 |             | 0.56 U                      |           | 0.53 U       | 1 U          | 0.79 U       | 0.66 U      | 0.65 U      | 0.63 U      | 0.41 J       |           |           |           |           |           |           |
| VANADIUM                 |             | 16.3 J                      |           | 17.8 J       | 28 J         | 30.1 J       | 23.4 J      | 27.3 J      | 21.4 J      | 22.4         |           |           |           |           |           |           |
| ZINC                     |             | 88.2 J                      |           | 85 J         | 3190 J       | 4370 J       | 1100 J      | 1210 J      | 637 J       | 0.19 R       |           |           |           |           |           |           |
| Mercury by CV (mg/kg)    |             |                             |           |              |              |              |             |             |             |              |           |           |           |           |           |           |
| MERCURY                  |             | 0.24                        |           | 0.18         | 1.7 J        | 2.9 J        | 2.6 J       | 3.3 J       | 4.8 J       | 3.8          |           |           |           |           |           |           |
| PCBS by MC ARO (mg/kg)   |             |                             |           |              |              |              |             |             |             |              |           |           |           |           |           |           |
| PCB-1016 (AROCOR 1016)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1221 (AROCOR 1221)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1232 (AROCOR 1232)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1242 (AROCOR 1242)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1248 (AROCOR 1248)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1254 (AROCOR 1254)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1260 (AROCOR 1260)   |             | 0.014 J                     |           | 0.0077 J     | 0.011 U      | 0.021 J      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1262 (AROCOR 1262)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCB-1268 (AROCOR 1268)   |             | 0.011 U                     |           | 0.011 U      | 0.011 U      | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |
| PCBs (total)             |             | 0.014 J                     |           | 0.0077 J     | 0.011 U      | 0.021 J      | 0.011 U     | 0.011 U     | 0.011 U     | 0.011 U      |           |           |           |           |           |           |

Key at the end of Table



Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                                  | Location ID |                             | R5-045-V  | R5-046-V     | R5-046-V     | R5-046-V    | R5-046-V    | R5-046-V    | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     | R5-046-V     |
|------------------------------------------|-------------|-----------------------------|-----------|--------------|--------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                          | Sample ID   |                             | R5-045-VR | R5-046-V-Z1a | R5-046-V-Z1b | R5-046-V-Z2 | R5-046-V-Z3 | R5-046-V-Z4 | R5-046-V-Z5a | R5-046-V-Z5b | R5-046-V-Z5c | R5-046-V-Z5d | R5-046-V-Z5e | R5-046-V-Z5f | R5-046-V-Z5g | R5-046-V-Z5h | R5-046-V-Z5i | R5-046-V-Z5j |
|                                          | Sample Date | Sample Depth Range (ft BGS) | 5/20/2010 | 5/20/2010    | 5/20/2010    | 5/20/2010   | 5/20/2010   | 5/20/2010   | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    |
|                                          |             |                             | 3-4       | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         | 4-5          |              |              |              |              |              |              |              |              |              |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |             |                             |           |              |              |             |             |             |              |              |              |              |              |              |              |              |              |              |
| 2-METHYLNAPHTHALENE                      |             |                             | 0.0036 U  | 0.0032 U     | 0.0017 U     | 0.014       | 0.028       | 0.036       | 0.0017 U     |              |              |              |              |              |              |              |              |              |
| ACENAPHTHENE                             |             |                             | 0.0036 UJ | 0.0032 U     | 0.011 J      | 0.032       | 0.04        | 0.038       | 0.0017 U     |              |              |              |              |              |              |              |              |              |
| ACENAPHTHYLENE                           |             |                             | 0.0036 U  | 0.0032 U     | 0.028        | 0.026       | 0.058       | 0.064       | 0.0017 U     |              |              |              |              |              |              |              |              |              |
| ANTHRACENE                               |             |                             | 0.013     | 0.011        | 0.031        | 0.14        | 0.21        | 0.22        | 0.012        |              |              |              |              |              |              |              |              |              |
| BENZO(A)ANTHRACENE                       |             |                             | 0.054     | 0.059        | 0.16         | 0.24        | 0.65        | 0.35        | 0.046        |              |              |              |              |              |              |              |              |              |
| BENZO(A)PYRENE                           |             |                             | 0.049     | 0.044 J      | 0.074        | 0.19        | 0.43        | 0.21        | 0.019        |              |              |              |              |              |              |              |              |              |
| BENZO(B)FLUORANTHENE                     |             |                             | 0.066     | 0.038        | 0.079        | 0.11 J      | 0.32 J      | 0.13 J      | 0.02         |              |              |              |              |              |              |              |              |              |
| BENZO(K)FLUORANTHENE                     |             |                             | 0.068 J   | 0.037        | 0.053        | 0.088       | 0.18        | 0.13        | 0.014        |              |              |              |              |              |              |              |              |              |
| CHRYSENE                                 |             |                             | 0.034 J   | 0.026        | 0.21         | 0.3         | 0.67        | 0.41        | 0.056        |              |              |              |              |              |              |              |              |              |
| DIBENZ(A,H)ANTHRACENE                    |             |                             | 0.015     | 0.0032 U     | 0.023        | 0.063       | 0.12        | 0.053       | 0.0067       |              |              |              |              |              |              |              |              |              |
| FLUORANTHENE                             |             |                             | 0.066     | 0.058        | 0.29         | 0.42        | 0.93        | 0.62        | 0.059        |              |              |              |              |              |              |              |              |              |
| FLUORENE                                 |             |                             | 0.0074    | 0.0082       | 0.02         | 0.032       | 0.038       | 0.048       | 0.0067       |              |              |              |              |              |              |              |              |              |
| INDENO(1,2,3-C,D)PYRENE                  |             |                             | 0.019     | 0.011        | 0.046        | 0.077       | 0.18        | 0.088       | 0.014        |              |              |              |              |              |              |              |              |              |
| NAPHTHALENE                              |             |                             | 0.0036 U  | 0.0032 U     | 0.0017 U     | 0.011       | 0.019       | 0.018       | 0.0095       |              |              |              |              |              |              |              |              |              |
| PHENANTHRENE                             |             |                             | 0.03      | 0.053        | 0.062        | 0.29 J      | 0.48 J      | 0.54 J      | 0.038        |              |              |              |              |              |              |              |              |              |
| PYRENE                                   |             |                             | 0.041     | 0.046 J      | 0.3          | 0.4         | 0.9         | 0.63        | 0.063        |              |              |              |              |              |              |              |              |              |
| PAHs (total)                             |             |                             | 0.49 J    | 0.4 J        | 1.4 J        | 2.5 J       | 5.4 J       | 3.7 J       | 0.38         |              |              |              |              |              |              |              |              |              |

Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                     | Location ID |              | R5-046-V     |              | R5-047-V     |             | R5-047-V    |             | R5-047-V     |  | R5-047-V |  | R5-047-V |  | R5-047-V |  | R5-048-V |  |
|-----------------------------|-------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|--|----------|--|----------|--|----------|--|----------|--|
|                             | Sample ID   | R5-046-V-Z5b | R5-046-V-Z6a | R5-047-V-Z1a | R5-047-V-Z1b | R5-047-V-Z2 | R5-047-V-Z3 | R5-047-V-Z4 | R5-048-V-Z1a |  |          |  |          |  |          |  |          |  |
|                             | Sample Date | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010   | 5/20/2010   | 5/20/2010   | 5/21/2010    |  |          |  |          |  |          |  |          |  |
| Sample Depth Range (ft BGS) | 5-6         | 6-7          | 0-0.5        | 0.5-1        | 1-2          | 2-3         | 3-4         | 0-0.5       |              |  |          |  |          |  |          |  |          |  |
| Metals by C200.7 (mg/kg)    |             |              |              |              |              |             |             |             |              |  |          |  |          |  |          |  |          |  |
| ALUMINUM                    | 13500 J     | 12500 J      | 15900 J      | 16400 J      | 15500 J      | 16900 J     | 14000 J     | 15700 J     |              |  |          |  |          |  |          |  |          |  |
| ANTIMONY                    | 0.35 J      | 0.23 UJ      | 0.52 UJ      | 0.49 UJ      | 0.45 UJ      | 0.5 J       | 0.52 J      | 0.64 J      |              |  |          |  |          |  |          |  |          |  |
| ARSENIC                     | 10.8 J      | 3.9          | 6.4 J        | 6 J          | 5.7 J        | 11.3 J      | 10.1 J      | 12.8 J      |              |  |          |  |          |  |          |  |          |  |
| BARIUM                      | 610 J       | 233          | 174 J        | 180 J        | 207 J        | 441 J       | 503 J       | 625 J       |              |  |          |  |          |  |          |  |          |  |
| BERYLLIUM                   | 0.62 J      | 0.61 J       | 0.66 J       | 0.71 J       | 0.71 J       | 0.78 J      | 0.65 J      | 0.7 J       |              |  |          |  |          |  |          |  |          |  |
| CADMIUM                     | 1.7 J       | 0.99         | 2.7 J        | 2.7 J        | 3.4 J        | 2.3 J       | 2 J         | 2.1 J       |              |  |          |  |          |  |          |  |          |  |
| CALCIUM                     | 8740 J      | 15000        | 15500 J      | 15400 J      | 16400 J      | 16400 J     | 12200 J     | 8430 J      |              |  |          |  |          |  |          |  |          |  |
| CHROMIUM                    | 146 J       | 38.7         | 95.9 J       | 92.5 J       | 117 J        | 106 J       | 93.2 J      | 163 J       |              |  |          |  |          |  |          |  |          |  |
| COBALT                      | 10.6 J      | 12 J         | 0.1 UJ       | 0.097 UJ     | 0.089 UJ     | 14 J        | 11.3 J      | 0.088 UJ    |              |  |          |  |          |  |          |  |          |  |
| COPPER                      | 194 J       | 31.8         | 222 J        | 226 J        | 275 J        | 208 J       | 185 J       | 240 J       |              |  |          |  |          |  |          |  |          |  |
| IRON                        | 21400 J     | 20600        | 24400 J      | 24900 J      | 25000 J      | 27500 J     | 22700 J     | 24600 J     |              |  |          |  |          |  |          |  |          |  |
| LEAD                        | 487 J       | 59.9         | 317 J        | 316 J        | 400 J        | 395 J       | 406 J       | 666 J       |              |  |          |  |          |  |          |  |          |  |
| MAGNESIUM                   | 6000 J      | 6090         | 7770 J       | 7510 J       | 7620 J       | 10200 J     | 7950 J      | 7150 J      |              |  |          |  |          |  |          |  |          |  |
| MANGANESE                   | 289 J       | 664          | 616 J        | 735 J        | 802 J        | 491 J       | 299 J       | 297 J       |              |  |          |  |          |  |          |  |          |  |
| NICKEL                      | 24.5 J      | 26.8 J       | 53 J         | 55.9 J       | 66.6 J       | 43.1 J      | 30.8 J      | 28.9 J      |              |  |          |  |          |  |          |  |          |  |
| POTASSIUM                   | 1960 J      | 1740 J       | 2300 J       | 2310 J       | 2140 J       | 2750 J      | 1990 J      | 2160 J      |              |  |          |  |          |  |          |  |          |  |
| SELENIUM                    | 1.2 J       | 0.58 U       | 1.6 J        | 1.6 J        | 1.1 UJ       | 0.97 J      | 0.78 UJ     | 1.1 UJ      |              |  |          |  |          |  |          |  |          |  |
| SILVER                      | 0.07 UJ     | 0.052 UJ     | 0.12 UJ      | 0.11 UJ      | 0.1 UJ       | 0.08 UJ     | 0.07 UJ     | 0.1 UJ      |              |  |          |  |          |  |          |  |          |  |
| SODIUM                      | 316 J       | 203 J        | 285 J        | 231 J        | 198 J        | 186 J       | 144 J       | 263 J       |              |  |          |  |          |  |          |  |          |  |
| THALLIUM                    | 0.28 J      | 0.3 J        | 0.45 UJ      | 0.42 UJ      | 0.39 UJ      | 0.46 J      | 0.32 J      | 0.49 J      |              |  |          |  |          |  |          |  |          |  |
| VANADIUM                    | 21.6 J      | 19.6         | 26 J         | 25.8 J       | 27.7 J       | 29 J        | 23.5 J      | 24.1 J      |              |  |          |  |          |  |          |  |          |  |
| ZINC                        | 0.19 R      | 0.14 R       | 0.32 R       | 0.3 R        | 0.28 R       | 0.22 R      | 0.19 R      | 0.27 R      |              |  |          |  |          |  |          |  |          |  |
| Mercury by CV (mg/kg)       |             |              |              |              |              |             |             |             |              |  |          |  |          |  |          |  |          |  |
| MERCURY                     | 6.3 J       | 1.3          | 0.51 J       | 0.61 J       | 0.74 J       | 3.3 J       | 3.2 J       | 7 J         |              |  |          |  |          |  |          |  |          |  |
| PCBS by MC ARO (mg/kg)      |             |              |              |              |              |             |             |             |              |  |          |  |          |  |          |  |          |  |
| PCB-1016 (AROCOR 1016)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1221 (AROCOR 1221)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1232 (AROCOR 1232)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1242 (AROCOR 1242)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1248 (AROCOR 1248)      | 0.011 U     | 0.011 U      | 0.39 J       | 0.21 J       | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1254 (AROCOR 1254)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1260 (AROCOR 1260)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1262 (AROCOR 1262)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCB-1268 (AROCOR 1268)      | 0.011 U     | 0.011 U      | 0.011 U      | 0.011 UJ     | 0.011 UJ     | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |
| PCBs (total)                | 0.011 U     | 0.011 U      | 0.39 J       | 0.21 J       | 0.011 U      | 0.011 U     | 0.011 U     | 0.011 U     |              |  |          |  |          |  |          |  |          |  |

Key at the end of Table

Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                                  | Location ID                 |              | R5-046-V     |  | R5-047-V     |  | R5-047-V     |  | R5-047-V    |  | R5-047-V    |  | R5-047-V    |  | R5-048-V     |  |
|------------------------------------------|-----------------------------|--------------|--------------|--|--------------|--|--------------|--|-------------|--|-------------|--|-------------|--|--------------|--|
|                                          | Sample ID                   | R5-046-V-Z5b | R5-046-V-Z6a |  | R5-047-V-Z1a |  | R5-047-V-Z1b |  | R5-047-V-Z2 |  | R5-047-V-Z3 |  | R5-047-V-Z4 |  | R5-048-V-Z1a |  |
|                                          | Sample Date                 | 5/20/2010    | 5/20/2010    |  | 5/20/2010    |  | 5/20/2010    |  | 5/20/2010   |  | 5/20/2010   |  | 5/20/2010   |  | 5/21/2010    |  |
|                                          | Sample Depth Range (ft BGS) | 5-6          | 6-7          |  | 0-0.5        |  | 0.5-1        |  | 1-2         |  | 2-3         |  | 3-4         |  | 0-0.5        |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |              |              |  |              |  |              |  |             |  |             |  |             |  |              |  |
| 2-METHYLNAPHTHALENE                      |                             | 0.0075       | 0.0017 U     |  | 0.012 J      |  | 0.013        |  | 0.015       |  | 0.019       |  | 0.024       |  | 0.013        |  |
| ACENAPHTHENE                             |                             | 0.0084       | 0.0017 U     |  | 0.0066 U     |  | 0.0061 U     |  | 0.017       |  | 0.0081 J    |  | 0.0036 U    |  | 0.0017 U     |  |
| ACENAPHTHYLENE                           |                             | 0.0087       | 0.0017 U     |  | 0.032        |  | 0.024        |  | 0.03        |  | 0.014 J     |  | 0.0098      |  | 0.013        |  |
| ANTHRACENE                               |                             | 0.035        | 0.0017 U     |  | 0.06         |  | 0.07         |  | 0.091       |  | 0.043       |  | 0.044       |  | 0.028        |  |
| BENZO(A)ANTHRACENE                       |                             | 0.13         | 0.0048 J     |  | 0.37         |  | 0.37         |  | 0.4         |  | 0.19        |  | 0.18        |  | 0.099        |  |
| BENZO(A)PYRENE                           |                             | 0.072        | 0.0017 U     |  | 0.35         |  | 0.35         |  | 0.33        |  | 0.16        |  | 0.12        |  | 0.11         |  |
| BENZO(B)FLUORANTHENE                     |                             | 0.056        | 0.0017 U     |  | 0.55 J       |  | 0.53 J       |  | 0.46 J      |  | 0.39 J      |  | 0.15 J      |  | 0.086        |  |
| BENZO(K)FLUORANTHENE                     |                             | 0.057        | 0.0017 U     |  | 0.26         |  | 0.25         |  | 0.22        |  | 0.11        |  | 0.078       |  | 0.068        |  |
| CHRYSENE                                 |                             | 0.14         | 0.0061       |  | 0.42         |  | 0.42         |  | 0.41        |  | 0.21        |  | 0.21        |  | 0.14         |  |
| DIBENZ(A,H)ANTHRACENE                    |                             | 0.028        | 0.0017 U     |  | 0.05         |  | 0.031        |  | 0.048       |  | 0.026       |  | 0.016       |  | 0.044        |  |
| FLUORANTHENE                             |                             | 0.2          | 0.0058       |  | 0.63         |  | 0.61         |  | 0.57        |  | 0.28        |  | 0.26        |  | 0.19         |  |
| FLUORENE                                 |                             | 0.015        | 0.0017 U     |  | 0.024        |  | 0.023        |  | 0.036       |  | 0.021 J     |  | 0.021       |  | 0.016        |  |
| INDENO(1,2,3-C,D)PYRENE                  |                             | 0.057        | 0.0017 U     |  | 0.11         |  | 0.08         |  | 0.45 J      |  | 0.054       |  | 0.031       |  | 0.07         |  |
| NAPHTHALENE                              |                             | 0.017        | 0.0017 U     |  | 0.015        |  | 0.014        |  | 0.015       |  | 0.021       |  | 0.031       |  | 0.036        |  |
| PHENANTHRENE                             |                             | 0.12 J       | 0.0017 U     |  | 0.21         |  | 0.21         |  | 0.28        |  | 0.1         |  | 0.12        |  | 0.094        |  |
| PYRENE                                   |                             | 0.18         | 0.0073       |  | 0.51         |  | 0.52         |  | 0.53        |  | 0.25        |  | 0.22        |  | 0.15         |  |
| PAHs (total)                             |                             | 1.2 J        | 0.024 J      |  | 3.7 J        |  | 3.6 J        |  | 4.3 J       |  | 1.9 J       |  | 1.5 J       |  | 1.2          |  |

Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                  | Location ID |          | Sample ID   |           | Sample Date |           | Sample Depth Range (ft BGS) |           | R5-048-V  |          | R5-048-V-Z1b |         | R5-048-V-Z2 |         | R5-048-V-Z3 |          | R5-049-V  |         | R5-049-V-Z1a |         | R5-049-V-Z1b |         | R5-049-V-Z2 |         | R5-049-V-Z3 |         | R5-049-V-Z4 |         |  |
|--------------------------|-------------|----------|-------------|-----------|-------------|-----------|-----------------------------|-----------|-----------|----------|--------------|---------|-------------|---------|-------------|----------|-----------|---------|--------------|---------|--------------|---------|-------------|---------|-------------|---------|-------------|---------|--|
|                          | Sample ID   |          | Sample Date |           | Sample Date |           | Sample Depth Range (ft BGS) |           | 5/21/2010 |          | 5/21/2010    |         | 5/21/2010   |         | 5/21/2010   |          | 5/21/2010 |         | 5/21/2010    |         | 5/21/2010    |         | 5/21/2010   |         | 5/21/2010   |         | 5/21/2010   |         |  |
|                          | 0.5-1       |          | 0.5-1       |           | 0.5-1       |           | 0.5-1                       |           | 1-2       |          | 1-2          |         | 1-2         |         | 2-3         |          | 2-3       |         | 0-0.5        |         | 0.5-1        |         | 1-2         |         | 2-3         |         | 3-4         |         |  |
| Metals by C200.7 (mg/kg) |             |          |             |           |             |           |                             |           |           |          |              |         |             |         |             |          |           |         |              |         |              |         |             |         |             |         |             |         |  |
| ALUMINUM                 |             | 14500 J  |             | 14500 J   |             | 14500 J   |                             | 14500 J   |           | 12000 J  |              | 13100 J |             | 13900 J |             | 15800 J  |           | 16400 J |              | 15800 J |              | 16400 J |             | 11800 J |             | 11800 J |             | 11800 J |  |
| ANTIMONY                 |             | 0.34 UJ  |             | 0.23 UJ   |             | 0.23 UJ   |                             | 0.23 UJ   |           | 0.18 UJ  |              | 0.36 UJ |             | 0.34 UJ |             | 0.36 UJ  |           | 0.4 UJ  |              | 0.36 UJ |              | 0.4 UJ  |             | 0.49 J  |             | 0.49 J  |             | 0.49 J  |  |
| ARSENIC                  |             | 4.1 J    |             | 1.5 J     |             | 1.5 J     |                             | 1.5 J     |           | 1.2      |              | 5 J     |             | 5.8 J   |             | 7 J      |           | 10.7 J  |              | 7 J     |              | 10.7 J  |             | 10      |             | 10      |             | 10      |  |
| BARIUM                   |             | 208 J    |             | 209       |             | 209       |                             | 209       |           | 124      |              | 171 J   |             | 207 J   |             | 234 J    |           | 257 J   |              | 234 J   |              | 257 J   |             | 466     |             | 466     |             | 466     |  |
| BERYLLIUM                |             | 0.67 J   |             | 0.66 J    |             | 0.66 J    |                             | 0.66 J    |           | 0.44 J   |              | 0.57 J  |             | 0.59 J  |             | 0.62 J   |           | 0.63 J  |              | 0.62 J  |              | 0.63 J  |             | 0.54 J  |             | 0.54 J  |             | 0.54 J  |  |
| CADMIUM                  |             | 0.013 UJ |             | 0.0086 UJ |             | 0.0086 UJ |                             | 0.0086 UJ |           | 0.68     |              | 3.4 J   |             | 4.9 J   |             | 12.1 J   |           | 13.5 J  |              | 12.1 J  |              | 13.5 J  |             | 1.8     |             | 1.8     |             | 1.8     |  |
| CALCIUM                  |             | 13400 J  |             | 3640      |             | 3640      |                             | 3640      |           | 2000     |              | 30700 J |             | 37300 J |             | 18100 J  |           | 15200 J |              | 18100 J |              | 15200 J |             | 7470    |             | 7470    |             | 7470    |  |
| CHROMIUM                 |             | 25.8 J   |             | 17.7      |             | 17.7      |                             | 17.7      |           | 17       |              | 138 J   |             | 227 J   |             | 434 J    |           | 1240 J  |              | 227 J   |              | 434 J   |             | 120     |             | 120     |             | 120     |  |
| COBALT                   |             | 0.067 UJ |             | 0.045 UJ  |             | 0.045 UJ  |                             | 0.045 UJ  |           | 9.7 J    |              | 12.6 J  |             | 14.2 J  |             | 29.1 J   |           | 25.6 J  |              | 14.2 J  |              | 25.6 J  |             | 10.3 J  |             | 10.3 J  |             | 10.3 J  |  |
| COPPER                   |             | 27.5 J   |             | 14.4      |             | 14.4      |                             | 14.4      |           | 8.5      |              | 243 J   |             | 373 J   |             | 854 J    |           | 1150 J  |              | 373 J   |              | 1150 J  |             | 178     |             | 178     |             | 178     |  |
| IRON                     |             | 21700 J  |             | 13600     |             | 13600     |                             | 13600     |           | 17500    |              | 20000 J |             | 21500 J |             | 25500 J  |           | 29900 J |              | 20000 J |              | 21500 J |             | 25500 J |             | 29900 J |             | 20200   |  |
| LEAD                     |             | 41.6 J   |             | 10.6      |             | 10.6      |                             | 10.6      |           | 6.2      |              | 372 J   |             | 619 J   |             | 1150 J   |           | 2180 J  |              | 372 J   |              | 619 J   |             | 480     |             | 480     |             | 480     |  |
| MAGNESIUM                |             | 5160 J   |             | 3830      |             | 3830      |                             | 3830      |           | 4860     |              | 6090 J  |             | 6600 J  |             | 6840 J   |           | 6750 J  |              | 6090 J  |              | 6600 J  |             | 5900    |             | 5900    |             | 5900    |  |
| MANGANESE                |             | 324 J    |             | 205       |             | 205       |                             | 205       |           | 200      |              | 417 J   |             | 586 J   |             | 617 J    |           | 368 J   |              | 417 J   |              | 586 J   |             | 247     |             | 247     |             | 247     |  |
| NICKEL                   |             | 24.7 J   |             | 20 J      |             | 20 J      |                             | 20 J      |           | 22.6 J   |              | 73.6 J  |             | 105 J   |             | 444 J    |           | 523 J   |              | 73.6 J  |              | 105 J   |             | 37.7 J  |             | 37.7 J  |             | 37.7 J  |  |
| POTASSIUM                |             | 1870 J   |             | 1490 J    |             | 1490 J    |                             | 1490 J    |           | 1100 J   |              | 1710 J  |             | 1790 J  |             | 1870 J   |           | 1980 J  |              | 1100 J  |              | 1710 J  |             | 1590 J  |             | 1590 J  |             | 1590 J  |  |
| SELENIUM                 |             | 0.85 UJ  |             | 0.57 U    |             | 0.57 U    |                             | 0.57 U    |           | 0.45 U   |              | 1.3 J   |             | 0.86 UJ |             | 1.8 J    |           | 3.7 J   |              | 0.45 U  |              | 1.3 J   |             | 0.73 U  |             | 0.73 U  |             | 0.73 U  |  |
| SILVER                   |             | 0.076 UJ |             | 0.051 U   |             | 0.051 U   |                             | 0.051 U   |           | 0.04 U   |              | 1.3 J   |             | 1.7 J   |             | 3.9 J    |           | 4 J     |              | 0.051 U |              | 1.3 J   |             | 1.1 J   |             | 1.1 J   |             | 1.1 J   |  |
| SODIUM                   |             | 242 J    |             | 196 J     |             | 196 J     |                             | 196 J     |           | 163 J    |              | 234 J   |             | 225 J   |             | 250 J    |           | 481 J   |              | 163 J   |              | 234 J   |             | 584 J   |             | 584 J   |             | 584 J   |  |
| THALLIUM                 |             | 0.29 UJ  |             | 0.2 U     |             | 0.2 U     |                             | 0.2 U     |           | 0.15 U   |              | 0.31 UJ |             | 0.34 J  |             | 0.43 J   |           | 0.35 UJ |              | 0.15 U  |              | 0.31 UJ |             | 0.27 J  |             | 0.27 J  |             | 0.27 J  |  |
| VANADIUM                 |             | 21.5 J   |             | 14.5      |             | 14.5      |                             | 14.5      |           | 15.7     |              | 25.5 J  |             | 30.8 J  |             | 41.7 J   |           | 110 J   |              | 15.7    |              | 25.5 J  |             | 20.2    |             | 20.2    |             | 20.2    |  |
| ZINC                     |             | 0.21 R   |             | 0.14 R    |             | 0.14 R    |                             | 0.14 R    |           | 0.11 R   |              | 0.22 R  |             | 0.21 R  |             | 0.22 R   |           | 0.25 R  |              | 0.11 R  |              | 0.22 R  |             | 0.18 R  |             | 0.18 R  |             | 0.18 R  |  |
| Mercury by CV (mg/kg)    |             |          |             |           |             |           |                             |           |           |          |              |         |             |         |             |          |           |         |              |         |              |         |             |         |             |         |             |         |  |
| MERCURY                  |             | 0.47 J   |             | 0.095 J   |             | 0.095 J   |                             | 0.095 J   |           | 0.076 J  |              | 0.62 J  |             | 0.95 J  |             | 1 J      |           | 1.4 J   |              | 0.076 J |              | 0.62 J  |             | 5.2     |             | 5.2     |             | 5.2     |  |
| PCBS by MC ARO (mg/kg)   |             |          |             |           |             |           |                             |           |           |          |              |         |             |         |             |          |           |         |              |         |              |         |             |         |             |         |             |         |  |
| PCB-1016 (AROCOR 1016)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1221 (AROCOR 1221)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1232 (AROCOR 1232)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1242 (AROCOR 1242)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1248 (AROCOR 1248)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.48    |             | 0.29 J   |           | 1.1 J   |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1254 (AROCOR 1254)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1260 (AROCOR 1260)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.0056 J |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1262 (AROCOR 1262)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCB-1268 (AROCOR 1268)   |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.011 U  |              | 0.011 U |             | 0.011 U |             | 0.011 UJ |           | 0.011 U |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |
| PCBs (total)             |             | 0.011 U  |             | 0.011 U   |             | 0.011 U   |                             | 0.011 U   |           | 0.0056 J |              | 0.011 U |             | 0.48    |             | 0.29 J   |           | 1.1 J   |              | 0.011 U |              | 0.011 U |             | 0.011 U |             | 0.011 U |             | 0.011 U |  |

Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                                  | Location ID                 |              | R5-048-V    |             | R5-048-V     |              | R5-048-V    |             | R5-049-V    |        | R5-049-V |       | R5-049-V |   | R5-049-V |        | R5-049-V |        |
|------------------------------------------|-----------------------------|--------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|--------|----------|-------|----------|---|----------|--------|----------|--------|
|                                          | Sample ID                   | R5-048-V-Z1b | R5-048-V-Z2 | R5-048-V-Z3 | R5-049-V-Z1a | R5-049-V-Z1b | R5-049-V-Z2 | R5-049-V-Z3 | R5-049-V-Z4 |        |          |       |          |   |          |        |          |        |
|                                          | Sample Date                 | 5/21/2010    | 5/21/2010   | 5/21/2010   | 5/21/2010    | 5/21/2010    | 5/21/2010   | 5/21/2010   | 5/21/2010   |        |          |       |          |   |          |        |          |        |
|                                          | Sample Depth Range (ft BGS) | 0.5-1        | 1-2         | 2-3         | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 2-3         | 3-4    |          |       |          |   |          |        |          |        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |              |             |             |              |              |             |             |             |        |          |       |          |   |          |        |          |        |
| 2-METHYLNAPHTHALENE                      | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.0017      | U      | 0.0017   | U     | 0.0017   | U | 0.035    | 0.0017 | U        | 0.0017 |
| ACENAPHTHENE                             | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.015       | 0.0098 | 0.0017   | U     | 0.0017   | U | 0.0017   | U      | 0.0017   | U      |
| ACENAPHTHYLENE                           | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.013       | 0.019  | 0.018    | 0.02  | 0.0062   | J |          |        |          |        |
| ANTHRACENE                               | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.02        | 0.042  | 0.027    | 0.031 | 0.012    |   |          |        |          |        |
| BENZO(A)ANTHRACENE                       | 0.022                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.11        | 0.17   | 0.099    | 0.13  | 0.05     |   |          |        |          |        |
| BENZO(A)PYRENE                           | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.091       | 0.14   | 0.086    | 0.12  | 0.034    |   |          |        |          |        |
| BENZO(B)FLUORANTHENE                     | 0.015                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.089       | 0.12   | 0.086    | 0.1   | 0.03     |   |          |        |          |        |
| BENZO(K)FLUORANTHENE                     | 0.02                        |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.062       | 0.087  | 0.059    | 0.069 | 0.024    |   |          |        |          |        |
| CHRYSENE                                 | 0.028                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.13        | 0.2    | 0.13     | 0.21  | 0.06     |   |          |        |          |        |
| DIBENZ(A,H)ANTHRACENE                    | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.054       | 0.065  | 0.048    | 0.044 | 0.013    |   |          |        |          |        |
| FLUORANTHENE                             | 0.034                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.15        | 0.2    | 0.17     | 0.15  | 0.073    |   |          |        |          |        |
| FLUORENE                                 | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.01        | 0.019  | 0.018    | 0.037 | 0.0092   |   |          |        |          |        |
| INDENO(1,2,3-C,D)PYRENE                  | 0.014                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.063       | 0.078  | 0.056    | 0.078 | 0.02     |   |          |        |          |        |
| NAPHTHALENE                              | 0.0017                      | U            | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.0017      | U      | 0.0017   | U     | 0.0017   | U | 0.0017   | U      | 0.0072   |        |
| PHENANTHRENE                             | 0.025                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.056       | 0.13   | 0.094    | 0.12  | 0.051    |   |          |        |          |        |
| PYRENE                                   | 0.038                       |              | 0.0017      | U           | 0.0017       | U            | 0.0017      | U           | 0.15        | 0.25   | 0.18     | 0.21  | 0.059    |   |          |        |          |        |
| PAHs (total)                             | 0.21                        |              | 0.0082      |             | 0.0076       |              | 0.0076      |             | 1.1         | 1.6    | 1.2      | 1.4   | 0.47     | J |          |        |          |        |

Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

| Analyte                  | Location ID                 |              | R5-049-V     |  | R5-050-V     |  | R5-050-V    |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  |
|--------------------------|-----------------------------|--------------|--------------|--|--------------|--|-------------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|
|                          | Sample ID                   | R5-049-V-Z5a | R5-050-V-Z1a |  | R5-050-V-Z1b |  | R5-050-V-Z2 |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  | R5-050-V  |  |
|                          | Sample Date                 | 5/21/2010    | 5/21/2010    |  | 5/21/2010    |  | 5/21/2010   |  | 5/21/2010 |  | 5/21/2010 |  | 5/21/2010 |  | 5/21/2010 |  | 5/21/2010 |  | 5/21/2010 |  |
|                          | Sample Depth Range (ft BGS) | 4-4.5        | 0-0.5        |  | 0.5-1        |  | 1-2         |  | 1-2       |  | 1-2       |  | 1-2       |  | 2-3       |  | 3-4       |  | 4-4.5     |  |
| Metals by C200.7 (mg/kg) |                             |              |              |  |              |  |             |  |           |  |           |  |           |  |           |  |           |  |           |  |
| ALUMINUM                 |                             |              | 12800 J      |  | 14200 J      |  | 13900 J     |  | 15100 J   |  | 13300 J   |  | 17800 J   |  | 18300 J   |  | 14300     |  |           |  |
| ANTIMONY                 |                             |              | 0.34 UJ      |  | 0.47 UJ      |  | 0.46 UJ     |  | 0.4 UJ    |  | 0.38 UJ   |  | 0.44 UJ   |  | 0.44 UJ   |  | 0.24 U    |  |           |  |
| ARSENIC                  |                             |              | 10.9 J       |  | 5.1 J        |  | 3.2 J       |  | 7.9 J     |  | 8.7 J     |  | 12.4 J    |  | 13.4 J    |  | 5.3 J     |  |           |  |
| BARIUM                   |                             |              | 924 J        |  | 206 J        |  | 165 J       |  | 252 J     |  | 250 J     |  | 332 J     |  | 300 J     |  | 142 J     |  |           |  |
| BERYLLIUM                |                             |              | 0.62 J       |  | 0.61 J       |  | 0.037 UJ    |  | 0.032 UJ  |  | 0.54 J    |  | 0.035 UJ  |  | 0.035 UJ  |  | 0.019 UJ  |  |           |  |
| CADMIUM                  |                             |              | 1.6 J        |  | 2.5 J        |  | 1.8 J       |  | 10.8 J    |  | 11.9 J    |  | 16.6 J    |  | 11.6 J    |  | 2.5 J     |  |           |  |
| CALCIUM                  |                             |              | 9820 J       |  | 10400 J      |  | 12100 J     |  | 13700 J   |  | 12100 J   |  | 14500 J   |  | 11700 J   |  | 16800     |  |           |  |
| CHROMIUM                 |                             |              | 174 J        |  | 79.5 J       |  | 79.4 J      |  | 826 J     |  | 875 J     |  | 1410 J    |  | 1070 J    |  | 130       |  |           |  |
| COBALT                   |                             |              | 0.068 UJ     |  | 0.094 UJ     |  | 0.093 UJ    |  | 18.3 J    |  | 18.3 J    |  | 19.1 J    |  | 19.5 J    |  | 15.4 J    |  |           |  |
| COPPER                   |                             |              | 177 J        |  | 181 J        |  | 159 J       |  | 1010 J    |  | 1010 J    |  | 2500 J    |  | 3000 J    |  | 594       |  |           |  |
| IRON                     |                             |              | 19900 J      |  | 20500 J      |  | 22700 J     |  | 22600 J   |  | 20400 J   |  | 24900 J   |  | 23700 J   |  | 24500     |  |           |  |
| LEAD                     |                             |              | 431 J        |  | 245 J        |  | 239 J       |  | 1830 J    |  | 1930 J    |  | 6190 J    |  | 6130 J    |  | 708 J     |  |           |  |
| MAGNESIUM                |                             |              | 6360 J       |  | 6380 J       |  | 6720 J      |  | 6400 J    |  | 5780 J    |  | 6380 J    |  | 6260 J    |  | 8460      |  |           |  |
| MANGANESE                |                             |              | 327 J        |  | 258 J        |  | 252 J       |  | 247 J     |  | 233 J     |  | 266 J     |  | 250 J     |  | 467       |  |           |  |
| NICKEL                   |                             |              | 30.3 J       |  | 51.4 J       |  | 58.4 J      |  | 316 J     |  | 366 J     |  | 360 J     |  | 358 J     |  | 81        |  |           |  |
| POTASSIUM                |                             |              | 1860 J       |  | 1990 J       |  | 2130 J      |  | 1840 J    |  | 1590 J    |  | 1990 J    |  | 1920 J    |  | 2180      |  |           |  |
| SELENIUM                 |                             |              | 0.99 J       |  | 1.7 J        |  | 1.3 J       |  | 2.3 J     |  | 2.2 J     |  | 3.8 J     |  | 2.6 J     |  | 0.6 U     |  |           |  |
| SILVER                   |                             |              | 1.9 J        |  | 0.88 J       |  | 0.87 J      |  | 2.6 J     |  | 2.7 J     |  | 5.5 J     |  | 6.9 J     |  | 1.6       |  |           |  |
| SODIUM                   |                             |              | 1030 J       |  | 388 J        |  | 10.8 UJ     |  | 9.4 UJ    |  | 325 J     |  | 10.3 UJ   |  | 10.2 UJ   |  | 5.5 UJ    |  |           |  |
| THALLIUM                 |                             |              | 0.29 UJ      |  | 0.41 UJ      |  | 0.4 UJ      |  | 0.35 UJ   |  | 0.33 UJ   |  | 0.38 UJ   |  | 0.38 UJ   |  | 0.2 U     |  |           |  |
| VANADIUM                 |                             |              | 22.8 J       |  | 25.2 J       |  | 23.5 J      |  | 55.1 J    |  | 60 J      |  | 86.9 J    |  | 68 J      |  | 28.4 J    |  |           |  |
| ZINC                     |                             |              | 0.21 R       |  | 0.29 R       |  | 665 J       |  | 5980 J    |  | 0.24 R    |  | 10900 J   |  | 8800 J    |  | 914 J     |  |           |  |
| Mercury by CV (mg/kg)    |                             |              |              |  |              |  |             |  |           |  |           |  |           |  |           |  |           |  |           |  |
| MERCURY                  |                             |              | 8.6 J        |  | 0.55 J       |  | 0.48 J      |  | 1 J       |  | 1.7 J     |  | 2.6 J     |  | 2.5 J     |  | 1.3       |  |           |  |
| PCBS by MC ARO (mg/kg)   |                             |              |              |  |              |  |             |  |           |  |           |  |           |  |           |  |           |  |           |  |
| PCB-1016 (AROCOR 1016)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCB-1221 (AROCOR 1221)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCB-1232 (AROCOR 1232)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCB-1242 (AROCOR 1242)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCB-1248 (AROCOR 1248)   |                             |              | 0.011 U      |  | 0.25 J       |  | 0.16 J      |  | 0.98 J    |  | 0.011 UJ  |  | 0.2 J     |  | 0.78 J    |  | 0.43 J    |  |           |  |
| PCB-1254 (AROCOR 1254)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCB-1260 (AROCOR 1260)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.12 J    |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.13 J    |  | 0.33 J    |  |           |  |
| PCB-1262 (AROCOR 1262)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCB-1268 (AROCOR 1268)   |                             |              | 0.011 U      |  | 0.011 U      |  | 0.011 U     |  | 0.011 U   |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 UJ  |  | 0.011 U   |  |           |  |
| PCBs (total)             |                             |              | 0.011 U      |  | 0.25 J       |  | 0.16 J      |  | 1.1 J     |  | 0.011 U   |  | 0.2 J     |  | 0.91 J    |  | 0.76 J    |  |           |  |

Key at the end of Table



Table 4-4a  
Summary of Results of Reach 5 Sediment Samples

Key:

- BGS = Below ground surface (in this case below top of sediment surface).
- ft = Feet.
- J = Estimated at the concentration listed.
- mg/Kg = Milligrams per kilogram.
- P = Ponar creek location/sample.
- PCB = Polychlorinated biphenyl.
- SVOA = Semivolatile organic compounds analysis.
- U = Non-detect.
- UJ = Non-detect/estimated.
- V = Vibracore creek location/sample.
- VR = Vibracore creek duplicate sample.
- Z = Sample depth interval consecutively numbered.



Table 4-4b  
Summary of Results for Reach 5 Soil Samples

|                                                 | Sample ID<br>Sample Date<br>Sample Depth Range (ft BGS) | R5-113-W<br>11/18/09<br>0-0.5 | R5-114-W<br>11/18/09<br>0-0.5 | R5-115-W<br>11/18/09<br>0-0.5 | R5-116-W<br>11/18/09<br>0-0.5 | R5-127-H<br>11/18/09<br>0-0.5 |
|-------------------------------------------------|---------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <b>Analyte</b>                                  |                                                         |                               |                               |                               |                               |                               |
| <b>Metals by C200.7 (mg/kg)</b>                 |                                                         |                               |                               |                               |                               |                               |
| ALUMINUM                                        |                                                         | 13900                         | 13400                         | 14800                         | 13400                         | 4870                          |
| ANTIMONY                                        |                                                         | 1.2 U                         | 2.1 U                         | 2.4 U                         | 1.3 U                         | 1.2 U                         |
| ARSENIC                                         |                                                         | 5.4                           | 4.9                           | 8.6                           | 6 J+                          | 3.2                           |
| BARIUM                                          |                                                         | 180                           | 195                           | 262                           | 187                           | 65                            |
| BERYLLIUM                                       |                                                         | 0.78 J+                       | 0.73 J                        | 0.84 J                        | 0.75 J+                       | 0.3 J                         |
| CADMIUM                                         |                                                         | 1.1 J-                        | 0.7 J                         | 0.15 U                        | 2.2 J-                        | 0.074 U                       |
| CALCIUM                                         |                                                         | 8060                          | 8570                          | 10800                         | 8620                          | 32000                         |
| CHROMIUM                                        |                                                         | 121 J                         | 94.3 J                        | 146 J                         | 172 J                         | 13.6 J                        |
| COBALT                                          |                                                         | 13.6                          | 10.9 J                        | 10.6 J                        | 16.9                          | 4.1 J                         |
| COPPER                                          |                                                         | 218                           | 247                           | 182                           | 301                           | 23.6                          |
| IRON                                            |                                                         | 25800                         | 24000                         | 26800                         | 25900                         | 11100                         |
| LEAD                                            |                                                         | 345 J                         | 265 J                         | 344 J                         | 473 J                         | 30.9 J                        |
| MAGNESIUM                                       |                                                         | 5980                          | 5290                          | 4800                          | 5630                          | 14700                         |
| MANGANESE                                       |                                                         | 756                           | 423                           | 398                           | 959                           | 332                           |
| NICKEL                                          |                                                         | 70.8 J                        | 53.2 J                        | 57.1 J                        | 115 J                         | 9.7 J                         |
| POTASSIUM                                       |                                                         | 1360                          | 1670                          | 1610                          | 1180                          | 14.4 U                        |
| SELENIUM                                        |                                                         | 2.5 J                         | 3.1 J                         | 3.2 J                         | 2.7 J                         | 0.87 J                        |
| SILVER                                          |                                                         | 0.14 UJ                       | 0.23 UJ                       | 0.27 UJ                       | 0.15 UJ                       | 0.13 UJ                       |
| SODIUM                                          |                                                         | 232 J                         | 5.5 UJ                        | 6.4 UJ                        | 232 J                         | 3.1 U                         |
| THALLIUM                                        |                                                         | 0.49 U                        | 0.83 U                        | 0.97 U                        | 0.52 U                        | 0.47 U                        |
| VANADIUM                                        |                                                         | 27.2                          | 26.7                          | 31.3                          | 31                            | 13.5                          |
| ZINC                                            |                                                         | 975 J                         | 709 J                         | 728 J                         | 1310 J                        | 309 J                         |
| <b>Mercury by CV (mg/kg)</b>                    |                                                         |                               |                               |                               |                               |                               |
| MERCURY                                         |                                                         | 0.8                           | 0.62                          | 0.51                          | 0.81                          | 0.058 U                       |
| <b>PCBS by MC ARO (mg/kg)</b>                   |                                                         |                               |                               |                               |                               |                               |
| PCB-1016 (AROCLOR 1016)                         |                                                         | 0.014 U                       | 0.02 U                        | 0.022 U                       | 0.013 UJ                      | 0.012 U                       |
| PCB-1221 (AROCLOR 1221)                         |                                                         | 0.026 U                       | 0.038 U                       | 0.042 U                       | 0.024 U                       | 0.023 U                       |
| PCB-1232 (AROCLOR 1232)                         |                                                         | 0.0095 U                      | 0.014 U                       | 0.015 U                       | 0.0087 U                      | 0.0086 U                      |
| PCB-1242 (AROCLOR 1242)                         |                                                         | 0.006 U                       | 0.0088 U                      | 0.01 U                        | 0.0055 U                      | 0.0054 U                      |
| PCB-1248 (AROCLOR 1248)                         |                                                         | 0.0099 U                      | 0.015 U                       | 0.016 U                       | 0.0091 U                      | 0.009 U                       |
| PCB-1254 (AROCLOR 1254)                         |                                                         | 0.13 J                        | 0.34 J                        | 1.2 J                         | 0.28 J                        | 0.0048 U                      |
| PCB-1260 (AROCLOR 1260)                         |                                                         | 0.012 U                       | 0.017 U                       | 0.019 U                       | 0.011 U                       | 0.011 U                       |
| PCB-1262 (AROCHLOR 1262)                        |                                                         | 0.011 U                       | 0.016 U                       | 0.018 U                       | 0.01 U                        | 0.01 U                        |
| PCB-1268 (AROCLOR 1268)                         |                                                         | 0.015 U                       | 0.023 U                       | 0.025 U                       | 0.014 U                       | 0.014 U                       |
| PCBs (total)                                    |                                                         | 0.13                          | 0.34                          | 1.2                           | 0.28                          | 0.011 U                       |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |                                                         |                               |                               |                               |                               |                               |
| 2-METHYLNAPHTHALENE                             |                                                         | --                            | --                            | --                            | 0.045 J                       | 0.041 J                       |
| ACENAPHTHENE                                    |                                                         | --                            | --                            | --                            | 0.018                         | 0.21                          |
| ACENAPHTHYLENE                                  |                                                         | --                            | --                            | --                            | 0.054                         | 0.097 J                       |
| ANTHRACENE                                      |                                                         | --                            | --                            | --                            | 0.07                          | 1.8                           |
| BENZO(A)ANTHRACENE                              |                                                         | --                            | --                            | --                            | 0.51                          | 2.9                           |
| BENZO(A)PYRENE                                  |                                                         | --                            | --                            | --                            | 0.31                          | 3                             |
| BENZO(B)FLUORANTHENE                            |                                                         | --                            | --                            | --                            | 0.51                          | 3.9                           |
| BENZO(K)FLUORANTHENE                            |                                                         | --                            | --                            | --                            | 0.33                          | 3.8                           |
| CHRYSENE                                        |                                                         | --                            | --                            | --                            | 0.58                          | 4.3 J                         |
| DIBENZ(A,H)ANTHRACENE                           |                                                         | --                            | --                            | --                            | 0.12                          | 5.1                           |
| FLUORANTHENE                                    |                                                         | --                            | --                            | --                            | 0.94 J                        | 9.7                           |
| FLUORENE                                        |                                                         | --                            | --                            | --                            | 0.034                         | 0.36                          |
| INDENO(1,2,3-C,D)PYRENE                         |                                                         | --                            | --                            | --                            | 0.37 J                        | 3.1 J                         |
| NAPHTHALENE                                     |                                                         | --                            | --                            | --                            | 0.042 J                       | 0.038                         |
| PENTACHLOROPHENOL                               |                                                         | --                            | --                            | --                            | 0.04                          | --                            |
| PHENANTHRENE                                    |                                                         | --                            | --                            | --                            | 0.37                          | 3.7                           |
| PYRENE                                          |                                                         | --                            | --                            | --                            | 0.91                          | 6.4                           |
| PAHs (total)                                    |                                                         | --                            | --                            | --                            | 5.3                           | 49                            |

Table 4-4b  
Summary of Results for Reach 5 Soil Samples

| Analyte                                 | Sample ID                   | R5-113-W | R5-114-W | R5-115-W | R5-116-W  | R5-127-H |
|-----------------------------------------|-----------------------------|----------|----------|----------|-----------|----------|
|                                         | Sample Date                 | 11/18/09 | 11/18/09 | 11/18/09 | 11/18/09  | 11/18/09 |
|                                         | Sample Depth Range (ft BGS) | 0-0.5    | 0-0.5    | 0-0.5    | 0-0.5     | 0-0.5    |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                             |          |          |          |           |          |
| ALDRIN                                  |                             | --       | --       | --       | 0.00044 U | 0.0004 U |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                             | --       | --       | --       | 0.0007 U  | 0.0007 U |
| ALPHA-CHLORDANE                         |                             | --       | --       | --       | 0.00035 U | 0.04 J   |
| ALPHA ENDOSULFAN                        |                             | --       | --       | --       | 0.00041 U | 0.0004 U |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                             | --       | --       | --       | 0.00092 U | 0.0009 U |
| BETA ENDOSULFAN                         |                             | --       | --       | --       | 0.0069 J  | 0.0024 U |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                             | --       | --       | --       | 0.00082 U | 0.0008 U |
| DIELDRIN                                |                             | --       | --       | --       | 0.011     | 0.0008 U |
| ENDOSULFAN SULFATE                      |                             | --       | --       | --       | 0.00082 U | 0.0008 U |
| ENDRIN                                  |                             | --       | --       | --       | 0.00082 U | 0.0077 J |
| ENDRIN ALDEHYDE                         |                             | --       | --       | --       | 0.0026 U  | 0.0025 U |
| ENDRIN KETONE                           |                             | --       | --       | --       | 0.0032 U  | 0.0031 U |
| GAMMA BHC (LINDANE)                     |                             | --       | --       | --       | 0.00066 U | 0.0007 U |
| GAMMA-CHLORDANE                         |                             | --       | --       | --       | 0.011 J   | 0.017 J  |
| HEPTACHLOR                              |                             | --       | --       | --       | 0.00084 U | 0.0008 U |
| HEPTACHLOR EPOXIDE                      |                             | --       | --       | --       | 0.00059 U | 0.0006 U |
| METHOXYCHLOR                            |                             | --       | --       | --       | 0.0026 U  | 0.0025 U |
| P,P'-DDD                                |                             | --       | --       | --       | 0.0018    | 0.0076 J |
| P,P'-DDE                                |                             | --       | --       | --       | 0.023 J   | 0.0081 U |
| P,P'-DDT                                |                             | --       | --       | --       | 0.016 U   | 0.003 U  |
| TOXAPHENE                               |                             | --       | --       | --       | 0.13 U    | 0.13 U   |

Key:

BGS = Below ground surface.  
ft = Feet.  
J = Estimated at the concentration listed.  
-H = Historical channel location/sample.  
mg/Kg = Milligrams per kilogram.  
PCB = Polychlorinated biphenyl.  
SVOA = Semivolatile organic compounds analysis.  
U = Non-detect.  
UJ = Non-detect/estimated.  
-W = Wetland location/sample.  
-- = Not submitted for this parameter.

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Analyte                                         | Sample ID | Sample Date | Sample Depth Range (ft BGS) | R6-051-C<br>11/19/2009 | R6-051-CR<br>11/19/2009 | R6-052-C<br>11/19/2009 | R6-053-C<br>11/19/2009 | R6-054-C<br>12/2/2009 | R6-055-C<br>11/17/2009 | R6-056-C<br>11/17/2009 | R6-056-CR<br>11/17/2009 |
|-------------------------------------------------|-----------|-------------|-----------------------------|------------------------|-------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|-------------------------|
|                                                 |           |             |                             | 0-1.2                  | 0-1.2                   | 0-1.3                  | 0-1.2                  | 0-0.5                 | 0-1.1                  | 0-1.2                  | 0-1.2                   |
| <b>Metals by C200.7 (mg/kg)</b>                 |           |             |                             |                        |                         |                        |                        |                       |                        |                        |                         |
| ALUMINUM                                        | 10400     | 8950        | 13400                       | 13400                  | 11500                   | 8250                   | 10400                  | 8070                  | 6730                   |                        |                         |
| ANTIMONY                                        | 1.6 U     | 1.9 U       | 5 J                         | 5 J                    | 1.9 U                   | 1.3 U                  | 1.6 U                  | 1.2 U                 | 0.91 U                 |                        |                         |
| ARSENIC                                         | 4         | 3.9         | 10.7                        | 10.7                   | 4                       | 3.6 J+                 | 3.1 J+                 | 3.2                   | 1.9                    |                        |                         |
| BARIUM                                          | 129       | 115         | 308                         | 308                    | 159                     | 105                    | 132                    | 98.1                  | 78.7                   |                        |                         |
| BERYLLIUM                                       | 0.61 J+   | 0.56 J      | 0.77 J                      | 0.77 J                 | 0.65 J                  | 0.53 J+                | 0.63 J+                | 0.46 J                | 0.45 J                 |                        |                         |
| CADMIUM                                         | 0.27 J-   | 1.2         | 7.1                         | 7.1                    | 0.45 J                  | 0.19 J-                | 1.7                    | 0.87                  | 0.84                   |                        |                         |
| CALCIUM                                         | 7620      | 7830        | 10400                       | 10400                  | 12900                   | 11000                  | 11100                  | 4340                  | 5050                   |                        |                         |
| CHROMIUM                                        | 78.8 J    | 64.8 J      | 539 J                       | 539 J                  | 96.7 J                  | 81                     | 109                    | 58.3                  | 50.6                   |                        |                         |
| COBALT                                          | 9.7 J     | 8.5 J       | 15.3                        | 15.3                   | 11.1 J                  | 8.9                    | 9.8                    | 10.3                  | 7.8                    |                        |                         |
| COPPER                                          | 156       | 153         | 2710                        | 2710                   | 217                     | 158                    | 208                    | 104                   | 81.9                   |                        |                         |
| IRON                                            | 19600     | 17800       | 26000                       | 26000                  | 22500                   | 18200                  | 20600                  | 19500                 | 16500                  |                        |                         |
| LEAD                                            | 207 J     | 193 J       | 3790 J                      | 3790 J                 | 277 J                   | 196                    | 359                    | 160                   | 149                    |                        |                         |
| MAGNESIUM                                       | 4590      | 4030        | 6090                        | 6090                   | 6220                    | 4620                   | 5770                   | 4370                  | 4100                   |                        |                         |
| MANGANESE                                       | 334       | 330         | 262                         | 262                    | 445                     | 479 J                  | 425                    | 284                   | 275                    |                        |                         |
| NICKEL                                          | 50.3 J    | 46 J        | 259 J                       | 259 J                  | 53.4 J                  | 44.2                   | 60.8                   | 74                    | 54.5                   |                        |                         |
| POTASSIUM                                       | 1130      | 23.3 U      | 27.2 U                      | 27.2 U                 | 1380                    | 874                    | 786 J                  | 755 J+                | 392 J+                 |                        |                         |
| SELENIUM                                        | 1.7 J     | 2.2 J       | 3.4 J                       | 3.4 J                  | 1.4 J                   | 2.3 J+                 | 0.95 U                 | 0.76 U                | 0.56 U                 |                        |                         |
| SILVER                                          | 0.17 UJ   | 0.22 UJ     | 6 J-                        | 6 J-                   | 0.21 UJ                 | 0.15 UJ                | 0.18 UJ                | 0.14 U                | 0.1 U                  |                        |                         |
| SODIUM                                          | 451 J     | 291 J-      | 663 J                       | 663 J                  | 334 J                   | 349 J                  | 4.1 UJ                 | 3.3 UJ                | 2.4 UJ                 |                        |                         |
| THALLIUM                                        | 0.62 U    | 0.77 U      | 0.9 U                       | 0.9 U                  | 0.76 U                  | 0.53 U                 | 0.62 U                 | 0.5 U                 | 0.37 U                 |                        |                         |
| VANADIUM                                        | 20.9      | 19.5        | 38.5                        | 38.5                   | 22.8                    | 17.7                   | 22.3                   | 16.9                  | 14.7                   |                        |                         |
| ZINC                                            | 543 J     | 603 J       | 3640 J                      | 3640 J                 | 715 J                   | 642                    | 882                    | 772                   | 627                    |                        |                         |
| <b>Mercury by CV (mg/kg)</b>                    |           |             |                             |                        |                         |                        |                        |                       |                        |                        |                         |
| MERCURY                                         | 0.51      | 0.61        | 3.4                         | 3.4                    | 0.5                     | 0.25                   | 0.89                   | 0.97                  | 0.57                   |                        |                         |
| <b>PCBS by MC ARO (mg/kg)</b>                   |           |             |                             |                        |                         |                        |                        |                       |                        |                        |                         |
| PCB-1016 (AROCOR 1016)                          | 0.019 U   | 0.021 U     | 0.023 U                     | 0.023 U                | 0.021 U                 | 0.02 U                 | 0.02 U                 | 0.013 U               | 2.3 J                  |                        |                         |
| PCB-1221 (AROCOR 1221)                          | 0.035 U   | 0.039 U     | 0.044 U                     | 0.044 U                | 0.04 U                  | 0.038 U                | 0.038 U                | 0.024 U               | 0.024 U                |                        |                         |
| PCB-1232 (AROCOR 1232)                          | 0.013 U   | 0.014 U     | 0.016 U                     | 0.016 U                | 0.015 U                 | 0.014 U                | 0.014 U                | 0.009 U               | 0.0088 U               |                        |                         |
| PCB-1242 (AROCOR 1242)                          | 0.0081 U  | 0.009 U     | 0.01 U                      | 0.01 U                 | 0.0093 U                | 0.0088 U               | 0.0088 U               | 0.0057 U              | 0.0056 U               |                        |                         |
| PCB-1248 (AROCOR 1248)                          | 0.013 U   | 0.015 U     | 0.017 U                     | 0.017 U                | 0.015 U                 | 0.014 U                | 0.015 U                | 0.0094 U              | 0.0092 U               |                        |                         |
| PCB-1254 (AROCOR 1254)                          | 0.47      | 0.47        | 1.3                         | 1.3                    | 0.72                    | 0.47 J                 | 0.32 J                 | 1 J                   | 1                      |                        |                         |
| PCB-1260 (AROCOR 1260)                          | 0.016 U   | 0.018 U     | 0.02 U                      | 0.02 U                 | 0.018 U                 | 0.017 U                | 0.017 U                | 0.011 U               | 0.011 U                |                        |                         |
| PCB-1262 (AROCOR 1262)                          | 0.015 U   | 0.017 U     | 0.019 U                     | 0.019 U                | 0.017 U                 | 0.016 U                | 0.016 U                | 0.01 U                | 0.01 U                 |                        |                         |
| PCB-1268 (AROCOR 1268)                          | 0.021 U   | 0.023 U     | 0.026 U                     | 0.026 U                | 0.024 U                 | 0.023 U                | 0.023 U                | 0.015 U               | 0.014 U                |                        |                         |
| PCBs (total)                                    | 0.47      | 0.47        | 1.3                         | 1.3                    | 0.72                    | 0.47                   | 0.32                   | 1                     | 3.3                    |                        |                         |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |             |                             |                        |                         |                        |                        |                       |                        |                        |                         |
| 2-METHYLNAPHTHALENE                             | 0.04 J    | 0.096 J     | 0.16                        | 0.16                   | 0.043                   | --                     | 2.1 J                  | --                    | --                     |                        |                         |
| ACENAPHTHENE                                    | 0.061     | 0.057       | 0.13                        | 0.13                   | 0.028                   | --                     | 4.5                    | --                    | --                     |                        |                         |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID  |       | Sample Date |       | Sample Depth Range (ft BGS) |           | R6-051-CR  | R6-052-C | R6-053-C | R6-054-C  | R6-055-C  | R6-056-C   | R6-056-CR  |
|-----------------------------------------|------------|-------|-------------|-------|-----------------------------|-----------|------------|----------|----------|-----------|-----------|------------|------------|
|                                         | 11/19/2009 | 0-1.2 | 11/19/2009  | 0-1.2 | 11/19/2009                  | 0-1.2     | 11/19/2009 | 0-1.3    | 0-1.2    | 12/2/2009 | 0-1.1     | 11/17/2009 | 11/17/2009 |
| ACENAPHTHYLENE                          | 0.023      |       | 0.038 J     |       | 0.29                        | 0.032     |            |          |          | --        | 0.09      | --         | --         |
| ANTHRACENE                              | 0.18       |       | 0.19        |       | 0.38                        | 0.076     |            |          |          | --        | 8.1       | --         | --         |
| BENZO(A)ANTHRACENE                      | 0.47       |       | 0.59        |       | 2.8                         | 0.54      |            |          |          | --        | 11        | --         | --         |
| BENZO(A)PYRENE                          | 0.5        |       | 0.57        |       | 2.2                         | 0.44      |            |          |          | --        | 7.6       | --         | --         |
| BENZO(B)FLUORANTHENE                    | 0.76       |       | 0.54        |       | 3                           | 0.63      |            |          |          | --        | 6.1       | --         | --         |
| BENZO(K)FLUORANTHENE                    | 0.39       |       | 0.53        |       | 0.89                        | 0.31      |            |          |          | --        | 5         | --         | --         |
| CHRYSENE                                | 0.56       |       | 0.66 J      |       | 3.4                         | 0.51 J    |            |          |          | --        | 11 J      | --         | --         |
| DIBENZ(A,H)ANTHRACENE                   | 0.25       |       | 0.084 J     |       | 0.2                         | 0.054     |            |          |          | --        | 1.9       | --         | --         |
| FLUORANTHENE                            | 0.76       |       | 0.87        |       | 5.7                         | 0.66      |            |          |          | --        | 16 J      | --         | --         |
| FLUORENE                                | 0.075      |       | 0.075       |       | 0.28                        | 0.046     |            |          |          | --        | 3.3       | --         | --         |
| INDENO(1,2,3-C,D)PYRENE                 | 0.49       |       | 0.56        |       | 0.85                        | 0.46      |            |          |          | --        | 5 J       | --         | --         |
| NAPHTHALENE                             | 0.04       |       | 0.076 J     |       | 0.16                        | 0.042 J   |            |          |          | --        | 1.4 J     | --         | --         |
| PENTACHLOROPHENOL                       | 0.012      |       | 0.011       |       | 0.35                        | 0.015     |            |          |          | --        | 0.028     | --         | --         |
| PHENANTHRENE                            | 0.49       |       | 0.48        |       | 0.88                        | 0.39      |            |          |          | --        | 21        | --         | --         |
| PYRENE                                  | 1          |       | 1.2         |       | 6                           | 0.87      |            |          |          | --        | 22        | --         | --         |
| PAHs (total)                            | 6.2        |       | 6.6         |       | 27                          | 5.2       |            |          |          | --        | 130       | --         | --         |
| <b>Pesticides by MC PEST (mg/kg)</b>    |            |       |             |       |                             |           |            |          |          |           |           |            |            |
| ALDRIN                                  | 0.00065 U  |       | 0.00073 U   |       | 0.00082 U                   | 0.00075 U |            |          |          | --        | 0.00071 U | --         | --         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | 0.001 U    |       | 0.0011 U    |       | 0.0013 U                    | 0.0012 U  |            |          |          | --        | 0.0011 U  | --         | --         |
| ALPHA-CHLORDANE                         | 0.00051 U  |       | 0.00057 U   |       | 0.00064 U                   | 0.00059 U |            |          |          | --        | 0.00056 U | --         | --         |
| ALPHA ENDOSULFAN                        | 0.0058 J   |       | 0.0075 J    |       | 0.019 J                     | 0.0007 U  |            |          |          | --        | 0.00066 U | --         | --         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | 0.019 J    |       | 0.0015 U    |       | 0.073 J                     | 0.0016 U  |            |          |          | --        | 0.012 J   | --         | --         |
| BETA ENDOSULFAN                         | 0.027 J    |       | 0.027 J     |       | 0.017 J                     | 0.021 J   |            |          |          | --        | 0.011 J   | --         | --         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | 0.046 J    |       | 0.047 J     |       | 0.046 J                     | 0.037 J   |            |          |          | --        | 0.019 J   | --         | --         |
| DIELDRIN                                | 0.014 J    |       | 0.015 J     |       | 0.0015 U                    | 0.0014 U  |            |          |          | --        | 0.011     | --         | --         |
| ENDOSULFAN SULFATE                      | 0.0012 U   |       | 0.0013 U    |       | 0.0039 J                    | 0.015 J   |            |          |          | --        | 0.0013 U  | --         | --         |
| ENDRIN                                  | 0.0012 U   |       | 0.0013 U    |       | 0.038 J                     | 0.0014 U  |            |          |          | --        | 0.0013 U  | --         | --         |
| ENDRIN ALDEHYDE                         | 0.0038 U   |       | 0.0042 U    |       | 0.0047 U                    | 0.0044 U  |            |          |          | --        | 0.0041 U  | --         | --         |
| ENDRIN KETONE                           | 0.0047 U   |       | 0.0052 U    |       | 0.0058 U                    | 0.0054 U  |            |          |          | --        | 0.0051 U  | --         | --         |
| GAMMA BHC (LINDANE)                     | 0.032 J    |       | 0.035 J     |       | 0.0012 U                    | 0.0011 U  |            |          |          | --        | 0.0011 U  | --         | --         |
| GAMMA-CHLORDANE                         | 0.028      |       | 0.027       |       | 0.08 J                      | 0.029 J   |            |          |          | --        | 0.019 J   | --         | --         |
| HEPTACHLOR                              | 0.0012 U   |       | 0.0014 U    |       | 0.0016 U                    | 0.0014 U  |            |          |          | --        | 0.0014 U  | --         | --         |
| HEPTACHLOR EPOXIDE                      | 0.00086 U  |       | 0.00097 U   |       | 0.0011 U                    | 0.001 U   |            |          |          | --        | 0.00094 U | --         | --         |
| METHOXYCHLOR                            | 0.0038 U   |       | 0.0042 U    |       | 0.0047 U                    | 0.0043 U  |            |          |          | --        | 0.0041 U  | --         | --         |
| P,P'-DDD                                | 0.0027 U   |       | 0.015       |       | 0.0033 J                    | 0.0031 J  |            |          |          | --        | 0.0029    | --         | --         |
| P,P'-DDE                                | 0.028      |       | 0.03 U      |       | 0.064 J                     | 0.022 U   |            |          |          | --        | 0.014 U   | --         | --         |
| P,P'-DDT                                | 0.0045 U   |       | 0.005 U     |       | 0.054 U                     | 0.0052 U  |            |          |          | --        | 0.0049 U  | --         | --         |
| TOXAPHENE                               | 0.19 U     |       | 0.21 U      |       | 0.24 U                      | 0.22 U    |            |          |          | --        | 0.21 U    | --         | --         |

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Analyte                                         | Sample ID | Sample Date | Sample Depth Range (ft BGS) | R6-057-C<br>11/17/2009<br>0-1.4 | R6-058-C<br>11/18/2009<br>0-2.2 | R6-059-C<br>11/18/2009<br>0-1.3 | R6-060-C<br>11/18/2009<br>0-0.8 | R6-061-C<br>11/18/2009<br>0-4 | R6-062-C<br>11/19/2009<br>0-3.7 | R6-063-C<br>11/19/2009<br>0-1.1 | R6-064-C<br>11/19/2009<br>0-1.4 |
|-------------------------------------------------|-----------|-------------|-----------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <b>Metals by C200.7 (mg/kg)</b>                 |           |             |                             |                                 |                                 |                                 |                                 |                               |                                 |                                 |                                 |
| ALUMINUM                                        |           | 11100       | 12100                       | 9580                            | 11900                           | 14200                           | 13100                           | 11000                         | 7850                            |                                 |                                 |
| ANTIMONY                                        |           | 1.8 U       | 2 U                         | 1.4 U                           | 2.2 U                           | 1.7 U                           | 3.8 J                           | 2.1 U                         | 1.3 U                           |                                 |                                 |
| ARSENIC                                         |           | 4.4         | 5                           | 5.3                             | 4.7                             | 5.2                             | 6.1                             | 4.4                           | 4                               |                                 |                                 |
| BARIUM                                          |           | 132         | 237                         | 127                             | 148                             | 202                             | 234                             | 179                           | 80.6                            |                                 |                                 |
| BERYLLIUM                                       |           | 0.63 J      | 0.77 J                      | 0.61 J+                         | 0.76 J                          | 0.85 J+                         | 0.79 J+                         | 0.74 J                        | 0.53 J+                         |                                 |                                 |
| CADMIUM                                         |           | 1.5         | 1.8                         | 0.25 J-                         | 0.34 J                          | 0.77 J-                         | 2 J-                            | 1.5                           | 0.083 UJ                        |                                 |                                 |
| CALCIUM                                         |           | 13600       | 13700                       | 8750                            | 12900                           | 18700                           | 17600                           | 12000                         | 8420                            |                                 |                                 |
| CHROMIUM                                        |           | 68.6        | 164 J                       | 82.7 J                          | 79.2 J                          | 107 J                           | 176 J                           | 137 J                         | 44.7 J                          |                                 |                                 |
| COBALT                                          |           | 10.5 J      | 12.2 J                      | 9.2                             | 11 J                            | 12.8                            | 13.3                            | 13.6                          | 9.1                             |                                 |                                 |
| COPPER                                          |           | 184         | 309                         | 186                             | 247                             | 281                             | 550                             | 293                           | 101                             |                                 |                                 |
| IRON                                            |           | 23100       | 23200                       | 19300                           | 23800                           | 27700                           | 26600                           | 22600                         | 19800                           |                                 |                                 |
| LEAD                                            |           | 250         | 452 J                       | 261 J                           | 250 J                           | 337 J                           | 720 J                           | 393 J                         | 129 J                           |                                 |                                 |
| MAGNESIUM                                       |           | 6390        | 6400                        | 4670                            | 6760                            | 7920                            | 7900                            | 5940                          | 4740                            |                                 |                                 |
| MANGANESE                                       |           | 702         | 278                         | 452                             | 476                             | 516                             | 340                             | 382                           | 346                             |                                 |                                 |
| NICKEL                                          |           | 41.8        | 65.5 J                      | 43.5 J                          | 43.2 J                          | 58.9 J                          | 94.3 J                          | 98.7 J                        | 29.7 J                          |                                 |                                 |
| POTASSIUM                                       |           | 878 J+      | 1430                        | 1060                            | 1470                            | 1720                            | 1570                            | 1370                          | 994                             |                                 |                                 |
| SELENIUM                                        |           | 1.1 U       | 3.2 J                       | 1.9 J                           | 2.4 J                           | 2.1 J                           | 3.4 J                           | 3.1 J                         | 1.2 J                           |                                 |                                 |
| SILVER                                          |           | 0.21 U      | 0.71 J-                     | 0.16 UJ                         | 0.25 UJ                         | 0.19 UJ                         | 0.67 J-                         | 0.24 UJ                       | 0.15 UJ                         |                                 |                                 |
| SODIUM                                          |           | 4.8 UJ      | 564 J                       | 281 J                           | 254 J-                          | 728 J                           | 320 J                           | 326 J                         | 204 J-                          |                                 |                                 |
| THALLIUM                                        |           | 0.74 U      | 0.81 U                      | 0.55 U                          | 0.89 U                          | 0.69 U                          | 0.79 U                          | 0.84 U                        | 0.53 U                          |                                 |                                 |
| VANADIUM                                        |           | 21.3        | 25.2                        | 20.6                            | 23.2                            | 27.1                            | 27.1                            | 24.5                          | 16                              |                                 |                                 |
| ZINC                                            |           | 546         | 929 J                       | 554 J                           | 599 J                           | 834 J                           | 1310 J                          | 1040 J                        | 290 J                           |                                 |                                 |
| <b>Mercury by CV (mg/kg)</b>                    |           |             |                             |                                 |                                 |                                 |                                 |                               |                                 |                                 |                                 |
| MERCURY                                         |           | 0.49        | 2.8                         | 0.43                            | 0.52                            | 0.88                            | 1.4                             | 0.65                          | 0.23                            |                                 |                                 |
| <b>PCBS by MC ARO (mg/kg)</b>                   |           |             |                             |                                 |                                 |                                 |                                 |                               |                                 |                                 |                                 |
| PCB-1016 (AROCOR 1016)                          |           | 0.011 U     | 0.025 U                     | 0.017 U                         | 0.023 U                         | 0.02 U                          | 0.022 U                         | 0.022 U                       | 0.015 U                         |                                 |                                 |
| PCB-1221 (AROCOR 1221)                          |           | 0.021 U     | 0.047 U                     | 0.032 U                         | 0.043 U                         | 0.038 U                         | 0.041 U                         | 0.041 U                       | 0.028 U                         |                                 |                                 |
| PCB-1232 (AROCOR 1232)                          |           | 0.0078 U    | 0.017 U                     | 0.012 U                         | 0.016 U                         | 0.014 U                         | 0.015 U                         | 0.015 U                       | 0.01 U                          |                                 |                                 |
| PCB-1242 (AROCOR 1242)                          |           | 0.0049 U    | 0.011 U                     | 0.0075 U                        | 0.0099 U                        | 0.0088 U                        | 0.0095 U                        | 0.0094 U                      | 0.0065 U                        |                                 |                                 |
| PCB-1248 (AROCOR 1248)                          |           | 0.0082 U    | 0.018 U                     | 0.012 U                         | 0.016 U                         | 0.015 U                         | 0.016 U                         | 0.016 U                       | 0.011 U                         |                                 |                                 |
| PCB-1254 (AROCOR 1254)                          |           | 0.0066 U    | 0.73 J                      | 0.49 J                          | 0.4 J                           | 0.53                            | 0.66                            | 2 J                           | 0.39                            |                                 |                                 |
| PCB-1260 (AROCOR 1260)                          |           | 0.0096 U    | 0.021 U                     | 0.014 U                         | 0.019 U                         | 0.017 U                         | 0.019 U                         | 0.018 U                       | 0.013 U                         |                                 |                                 |
| PCB-1262 (AROCOR 1262)                          |           | 0.0091 U    | 0.02 U                      | 0.014 U                         | 0.018 U                         | 0.016 U                         | 0.018 U                         | 0.017 U                       | 0.012 U                         |                                 |                                 |
| PCB-1268 (AROCOR 1268)                          |           | 0.013 U     | 0.028 U                     | 0.019 U                         | 0.025 U                         | 0.023 U                         | 0.025 U                         | 0.024 U                       | 0.017 U                         |                                 |                                 |
| PCBs (total)                                    |           | 0.011 U     | 0.73                        | 0.49                            | 0.4                             | 0.53                            | 0.66                            | 2                             | 0.39                            |                                 |                                 |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |             |                             |                                 |                                 |                                 |                                 |                               |                                 |                                 |                                 |
| 2-METHYLNAPHTHALENE                             |           | --          | 0.021                       | --                              | --                              | 0.068 J                         | --                              | --                            | --                              |                                 |                                 |
| ACENAPHTHENE                                    |           | --          | 0.027                       | --                              | --                              | 0.046 J                         | --                              | --                            | --                              |                                 |                                 |

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID<br>Sample Date<br>Sample Depth Range (ft BGS) | R6-057-C<br>11/17/2009<br>0-1.4 | R6-058-C<br>11/18/2009<br>0-2.2 | R6-059-C<br>11/18/2009<br>0-1.3 | R6-060-C<br>11/18/2009<br>0-0.8 | R6-061-C<br>11/18/2009<br>0-4 | R6-062-C<br>11/19/2009<br>0-3.7 | R6-063-C<br>11/19/2009<br>0-1.1 | R6-064-C<br>11/19/2009<br>0-1.4 |
|-----------------------------------------|---------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------------|
| ACENAPHTHYLENE                          |                                                         | --                              | 0.014 J                         | --                              | --                              | 0.07                          | --                              | --                              | --                              |
| ANTHRACENE                              |                                                         | --                              | 0.17                            | --                              | --                              | 0.16                          | --                              | --                              | --                              |
| BENZO(A)ANTHRACENE                      |                                                         | --                              | 0.76                            | --                              | --                              | 0.85                          | --                              | --                              | --                              |
| BENZO(A)PYRENE                          |                                                         | --                              | 0.44                            | --                              | --                              | 0.69                          | --                              | --                              | --                              |
| BENZO(B)FLUORANTHENE                    |                                                         | --                              | 0.46                            | --                              | --                              | 0.7                           | --                              | --                              | --                              |
| BENZO(K)FLUORANTHENE                    |                                                         | --                              | 0.3                             | --                              | --                              | 0.53                          | --                              | --                              | --                              |
| CHRYSENE                                |                                                         | --                              | 0.63 J                          | --                              | --                              | 0.91 J                        | --                              | --                              | --                              |
| DIBENZ(A,H)ANTHRACENE                   |                                                         | --                              | 0.077                           | --                              | --                              | 0.25                          | --                              | --                              | --                              |
| FLUORANTHENE                            |                                                         | --                              | 0.55                            | --                              | --                              | 1.4 J                         | --                              | --                              | --                              |
| FLUORENE                                |                                                         | --                              | 0.032 J                         | --                              | --                              | 0.077                         | --                              | --                              | --                              |
| INDENO(1,2,3-C,D)PYRENE                 |                                                         | --                              | 0.45                            | --                              | --                              | 0.47 J                        | --                              | --                              | --                              |
| NAPHTHALENE                             |                                                         | --                              | 0.027                           | --                              | --                              | 0.059                         | --                              | --                              | --                              |
| PENTACHLOROPHENOL                       |                                                         | --                              | --                              | --                              | --                              | --                            | --                              | --                              | --                              |
| PHENANTHRENE                            |                                                         | --                              | 0.42                            | --                              | --                              | 0.5                           | --                              | --                              | --                              |
| PYRENE                                  |                                                         | --                              | 0.72                            | --                              | --                              | 1.3                           | --                              | --                              | --                              |
| PAHs (total)                            |                                                         | --                              | 5.1                             | --                              | --                              | 8.2                           | --                              | --                              | --                              |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                                                         |                                 |                                 |                                 |                                 |                               |                                 |                                 |                                 |
| ALDRIN                                  |                                                         | --                              | 0.00087 U                       | --                              | --                              | 0.00071 U                     | --                              | --                              | --                              |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                                                         | --                              | 0.0014 U                        | --                              | --                              | 0.0011 U                      | --                              | --                              | --                              |
| ALPHA-CHLORDANE                         |                                                         | --                              | 0.00068 U                       | --                              | --                              | 0.00056 U                     | --                              | --                              | --                              |
| ALPHA ENDOSULFAN                        |                                                         | --                              | 0.00081 U                       | --                              | --                              | 0.0071 J                      | --                              | --                              | --                              |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                                                         | --                              | 0.0018 U                        | --                              | --                              | 0.0015 U                      | --                              | --                              | --                              |
| BETA ENDOSULFAN                         |                                                         | --                              | 0.018 J                         | --                              | --                              | 0.016 J                       | --                              | --                              | --                              |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                                                         | --                              | 0.037 J                         | --                              | --                              | 0.019 J                       | --                              | --                              | --                              |
| DIELDRIN                                |                                                         | --                              | 0.022 J                         | --                              | --                              | 0.0013 U                      | --                              | --                              | --                              |
| ENDOSULFAN SULFATE                      |                                                         | --                              | 0.0016 U                        | --                              | --                              | 0.0013 U                      | --                              | --                              | --                              |
| ENDRIN                                  |                                                         | --                              | 0.0016 U                        | --                              | --                              | 0.0013 U                      | --                              | --                              | --                              |
| ENDRIN ALDEHYDE                         |                                                         | --                              | 0.005 U                         | --                              | --                              | 0.0041 U                      | --                              | --                              | --                              |
| ENDRIN KETONE                           |                                                         | --                              | 0.0062 U                        | --                              | --                              | 0.0051 U                      | --                              | --                              | --                              |
| GAMMA BHC (LINDANE)                     |                                                         | --                              | 0.015                           | --                              | --                              | 0.0059 J                      | --                              | --                              | --                              |
| GAMMA-CHLORDANE                         |                                                         | --                              | 0.038 J                         | --                              | --                              | 0.025 J                       | --                              | --                              | --                              |
| HEPTACHLOR                              |                                                         | --                              | 0.0017 U                        | --                              | --                              | 0.0014 U                      | --                              | --                              | --                              |
| HEPTACHLOR EPOXIDE                      |                                                         | --                              | 0.0012 U                        | --                              | --                              | 0.00095 U                     | --                              | --                              | --                              |
| METHOXYCHLOR                            |                                                         | --                              | 0.005 U                         | --                              | --                              | 0.0041 U                      | --                              | --                              | --                              |
| P,P'-DDD                                |                                                         | --                              | 0.02 J                          | --                              | --                              | 0.0029 U                      | --                              | --                              | --                              |
| P,P'-DDE                                |                                                         | --                              | 0.051 J                         | --                              | --                              | 0.0018 U                      | --                              | --                              | --                              |
| P,P'-DDT                                |                                                         | --                              | 0.019 U                         | --                              | --                              | 0.0049 U                      | --                              | --                              | --                              |
| TOXAPHENE                               |                                                         | --                              | 0.25 U                          | --                              | --                              | 0.21 U                        | --                              | --                              | --                              |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                  | Sample ID   |          | Sample Date |          | Sample Depth Range (ft BGS) |          | R6-065-C |         | R6-066-C |  | R6-067-C |  | R6-144-C-Z1a |  | R6-145-C-Comp |  | R6-146-C-Z1a |  |
|------------------------------------------|-------------|----------|-------------|----------|-----------------------------|----------|----------|---------|----------|--|----------|--|--------------|--|---------------|--|--------------|--|
|                                          | Sample Date |          | Sample Date |          | Sample Depth Range (ft BGS) |          | R6-065-C |         | R6-066-C |  | R6-067-C |  | R6-144-C-Z1a |  | R6-145-C-Comp |  | R6-146-C-Z1a |  |
|                                          | Sample Date |          | Sample Date |          | Sample Depth Range (ft BGS) |          | R6-065-C |         | R6-066-C |  | R6-067-C |  | R6-144-C-Z1a |  | R6-145-C-Comp |  | R6-146-C-Z1a |  |
| Metals by C200.7 (mg/kg)                 |             |          |             |          |                             |          |          |         |          |  |          |  |              |  |               |  |              |  |
| ALUMINUM                                 | 7500        | 12500    | 11200       | 16600 J  | 17900 J                     | 13000 J  | 11000 J  | 14600 J |          |  |          |  |              |  |               |  |              |  |
| ANTIMONY                                 | 1.9 U       | 1.6 U    | 1.9 U       | 1.3 UJ   | 1.1 UJ                      | 1 UJ     | 0.85 UJ  | 1 UR    |          |  |          |  |              |  |               |  |              |  |
| ARSENIC                                  | 3.3         | 4.9 J+   | 4.8         | 5.6 J    | 8.2 J                       | 5 J      | 4.1 J    | 9.8 J   |          |  |          |  |              |  |               |  |              |  |
| BARIUM                                   | 122         | 168      | 150         | 174 J    | 232 J                       | 136 J    | 113 J    | 316 J   |          |  |          |  |              |  |               |  |              |  |
| BERYLLIUM                                | 0.52 J      | 0.65 J+  | 0.66 J      | 0.64 J   | 0.6 J                       | 0.49 J   | 0.47 J   | 0.38 J  |          |  |          |  |              |  |               |  |              |  |
| CADMIUM                                  | 0.3 J       | 1.8 J-   | 1.6         | 0.068 UJ | 7.9 J                       | 0.053 UJ | 0.043 UJ | 9.5 J   |          |  |          |  |              |  |               |  |              |  |
| CALCIUM                                  | 11000       | 13400    | 11700       | 16700 J  | 20400 J                     | 14600 J  | 10300 J  | 11400 J |          |  |          |  |              |  |               |  |              |  |
| CHROMIUM                                 | 61.9 J      | 99       | 86.6        | 81.2 J   | 796 J                       | 50 J     | 49.2 J   | 679 J   |          |  |          |  |              |  |               |  |              |  |
| COBALT                                   | 8.8 J       | 10.8     | 10.3 J      | 0.15 UJ  | 16.1 J                      | 0.11 UJ  | 0.093 UJ | 19.3 J  |          |  |          |  |              |  |               |  |              |  |
| COPPER                                   | 126         | 238      | 216         | 170 J    | 827 J                       | 103 J    | 98 J     | 1530 J  |          |  |          |  |              |  |               |  |              |  |
| IRON                                     | 18300       | 22400    | 20600       | 23500 J  | 24000 J                     | 19600 J  | 17000 J  | 21600 J |          |  |          |  |              |  |               |  |              |  |
| LEAD                                     | 170 J       | 299 J+   | 235 J+      | 246 J    | 1620 J                      | 164 J    | 153 J    | 3310 J  |          |  |          |  |              |  |               |  |              |  |
| MAGNESIUM                                | 4280        | 6840     | 6040        | 7340 J   | 7190 J                      | 5800 J   | 4840 J   | 5710 J  |          |  |          |  |              |  |               |  |              |  |
| MANGANESE                                | 281         | 363      | 276         | 593 J    | 458 J                       | 515 J    | 424 J    | 298 J   |          |  |          |  |              |  |               |  |              |  |
| NICKEL                                   | 36.4 J      | 52.2     | 46.3        | 49.9 J   | 204 J                       | 35.3 J   | 34.7 J   | 283 J   |          |  |          |  |              |  |               |  |              |  |
| POTASSIUM                                | 23.6 U      | 1580     | 1520        | 2460 J   | 2290 J                      | 1950 J   | 1610 J   | 1590 J  |          |  |          |  |              |  |               |  |              |  |
| SELENIUM                                 | 2.4 J       | 1.7 J    | 2.2 J       | 1.7 J    | 2.4 J                       | 1.5 J    | 1.2 J    | 1.6 J   |          |  |          |  |              |  |               |  |              |  |
| SILVER                                   | 0.22 UJ     | 0.18 UJ  | 0.21 U      | 1.4 UJ   | 1.2 J                       | 1.1 U    | 3.6 J    | 3.6 J   |          |  |          |  |              |  |               |  |              |  |
| SODIUM                                   | 422 J       | 372 J    | 370 J       | 9.9 UJ   | 7.8 UJ                      | 7.7 UJ   | 6.3 UJ   | 7.7 UJ  |          |  |          |  |              |  |               |  |              |  |
| THALLIUM                                 | 0.78 U      | 0.65 U   | 0.75 U      | 1 UJ     | 0.81 U                      | 0.8 U    | 0.65 U   | 0.8 U   |          |  |          |  |              |  |               |  |              |  |
| VANADIUM                                 | 16.2        | 24.6     | 22.3        | 26 J     | 60.7 J                      | 21.2 J   | 17.7 J   | 47.9 J  |          |  |          |  |              |  |               |  |              |  |
| ZINC                                     | 431 J       | 703      | 643         | 642 J    | 4570 J                      | 434 J    | 387 J    | 6800 J  |          |  |          |  |              |  |               |  |              |  |
| Mercury by CV (mg/kg)                    |             |          |             |          |                             |          |          |         |          |  |          |  |              |  |               |  |              |  |
| MERCURY                                  | 0.4         | 0.53     | 1.6         | 0.67 J   | 0.95 J                      | 0.62 J   | 0.5 J    | 1.6 J   |          |  |          |  |              |  |               |  |              |  |
| PCBS by MC ARO (mg/kg)                   |             |          |             |          |                             |          |          |         |          |  |          |  |              |  |               |  |              |  |
| PCB-1016 (AROCOR 1016)                   | 0.019 U     | 0.019 U  | 0.019 U     | 0.097 U  | 0.033 U                     | 0.033 U  | 0.033 U  | 0.087 U |          |  |          |  |              |  |               |  |              |  |
| PCB-1221 (AROCOR 1221)                   | 0.035 U     | 0.036 U  | 0.035 U     | 0.097 U  | 0.033 U                     | 0.033 U  | 0.033 U  | 0.087 U |          |  |          |  |              |  |               |  |              |  |
| PCB-1232 (AROCOR 1232)                   | 0.013 U     | 0.013 U  | 0.013 U     | 0.097 U  | 0.033 U                     | 0.033 U  | 0.033 U  | 0.087 U |          |  |          |  |              |  |               |  |              |  |
| PCB-1242 (AROCOR 1242)                   | 0.0081 U    | 0.0083 U | 0.0081 U    | 0.097 U  | 0.033 U                     | 0.033 U  | 0.033 U  | 0.087 U |          |  |          |  |              |  |               |  |              |  |
| PCB-1248 (AROCOR 1248)                   | 0.013 U     | 0.014 U  | 0.013 U     | 0.097 U  | 0.05 NJ                     | 0.033 U  | 0.033 U  | 0.32 NJ |          |  |          |  |              |  |               |  |              |  |
| PCB-1254 (AROCOR 1254)                   | 1 J         | 4.5      | 0.87        | 0.097 U  | 0.03 J                      | 0.03 J   | 0.033 U  | 0.24 J  |          |  |          |  |              |  |               |  |              |  |
| PCB-1260 (AROCOR 1260)                   | 0.016 U     | 0.016 U  | 0.016 U     | 0.097 U  | 0.033 U                     | 0.019 J  | 0.033 U  | 0.086 J |          |  |          |  |              |  |               |  |              |  |
| PCB-1262 (AROCOR 1262)                   | 0.015 U     | 0.015 U  | 0.015 U     | 0.097 U  | 0.033 U                     | 0.033 U  | 0.033 U  | 0.087 U |          |  |          |  |              |  |               |  |              |  |
| PCB-1268 (AROCOR 1268)                   | 0.021 U     | 0.021 U  | 0.021 U     | 0.097 U  | 0.033 U                     | 0.033 U  | 0.033 U  | 0.087 U |          |  |          |  |              |  |               |  |              |  |
| PCBs (total)                             | 1           | 4.5      | 0.87        | 0.097 U  | 0.08 J                      | 0.049 J  | 0.033 U  | 0.65 J  |          |  |          |  |              |  |               |  |              |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |             |          |             |          |                             |          |          |         |          |  |          |  |              |  |               |  |              |  |
| 2-METHYLNAPHTHALENE                      | --          | --       | --          | 0.049 J  | 0.063                       | 0.006 U  | 0.005    | 0.047   |          |  |          |  |              |  |               |  |              |  |
| ACENAPHTHENE                             | --          | --       | --          | 0.0091   | 0.027                       | 0.006    | 0.0085   | 0.052 J |          |  |          |  |              |  |               |  |              |  |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |    | R6-065-C   | R6-066-C   | R6-067-C   | R6-144-C-Z1a | R6-144-C-Comp | R6-145-C-Z1a | R6-145-C-Comp | R6-146-C-Z1a |
|-----------------------------------------|-----------|--|-------------|--|-----------------------------|----|------------|------------|------------|--------------|---------------|--------------|---------------|--------------|
|                                         |           |  |             |  |                             |    | 11/19/2009 | 11/25/2009 | 11/25/2009 | 7/2/2010     | 7/2/2010      | 7/2/2010     | 7/2/2010      | 7/2/2010     |
|                                         |           |  |             |  |                             |    | 0-2.4      | 0-1.9      | 0-2.1      | 0-0.5        | 0-1.3         | 0-0.5        | 0-0.7         | 0-0.5        |
| ACENAPHTHYLENE                          |           |  |             |  |                             | -- | --         | --         | --         | 0.022        | 0.037         | 0.017        | 0.019         | 0.079        |
| ANTHRACENE                              |           |  |             |  |                             | -- | --         | --         | --         | 0.043        | 0.037         | 0.025 J      | 0.024         | 0.18         |
| BENZO(A)ANTHRACENE                      |           |  |             |  |                             | -- | --         | --         | --         | 0.12         | 0.25 J        | 0.14 J       | 0.12 J        | 0.7          |
| BENZO(A)PYRENE                          |           |  |             |  |                             | -- | --         | --         | --         | 0.081 J      | 0.19          | 0.06 J       | 0.036         | 0.18         |
| BENZO(B)FLUORANTHENE                    |           |  |             |  |                             | -- | --         | --         | --         | 0.11         | 0.29          | 0.1          | 0.058         | 0.15         |
| BENZO(K)FLUORANTHENE                    |           |  |             |  |                             | -- | --         | --         | --         | 0.053        | 0.11          | 0.053 J      | 0.034         | 0.15         |
| CHRYSENE                                |           |  |             |  |                             | -- | --         | --         | --         | 0.21         | 0.4           | 0.21         | 0.16 J        | 1.1          |
| DIBENZ(A,H)ANTHRACENE                   |           |  |             |  |                             | -- | --         | --         | --         | 0.026        | 0.022         | 0.0099 J     | 0.0056        | 0.072        |
| FLUORANTHENE                            |           |  |             |  |                             | -- | --         | --         | --         | 0.37         | 0.49          | 0.14         | 0.24          | 0.95         |
| FLUORENE                                |           |  |             |  |                             | -- | --         | --         | --         | 0.013        | 0.054         | 0.0073       | 0.012         | 0.068        |
| INDENO(1,2,3-C,D)PYRENE                 |           |  |             |  |                             | -- | --         | --         | --         | 0.059 U      | 0.035         | 0.02 U       | 0.011 U       | 0.096        |
| NAPHTHALENE                             |           |  |             |  |                             | -- | --         | --         | --         | 0.009        | 0.011         | 0.006        | 0.005         | 0.027        |
| PENTACHLOROPHENOL                       |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| PHENANTHRENE                            |           |  |             |  |                             | -- | --         | --         | --         | 0.12         | 0.34          | 0.14 J       | 0.095         | 0.32         |
| PYRENE                                  |           |  |             |  |                             | -- | --         | --         | --         | 0.22 J       | 0.34 J        | 0.27 J       | 0.2 J         | 1.2 J        |
| PAHs (total)                            |           |  |             |  |                             | -- | --         | --         | --         | 1.5          | 2.7           | 1.2          | 1             | 5.5          |
| Pesticides by MC PEST (mg/kg)           |           |  |             |  |                             |    |            |            |            |              |               |              |               |              |
| ALDRIN                                  |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ALPHA-CHLORDANE                         |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ALPHA ENDOSULFAN                        |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| BETA ENDOSULFAN                         |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| DIELDRIN                                |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ENDOSULFAN SULFATE                      |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ENDRIN                                  |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ENDRIN ALDEHYDE                         |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| ENDRIN KETONE                           |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| GAMMA BHC (LINDANE)                     |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| GAMMA-CHLORDANE                         |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| HEPTACHLOR                              |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| HEPTACHLOR EPOXIDE                      |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| METHOXYCHLOR                            |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| P,P'-DDD                                |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| P,P'-DDE                                |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| P,P'-DDT                                |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |
| TOXAPHENE                               |           |  |             |  |                             | -- | --         | --         | --         | --           | --            | --           | --            | --           |



Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                        | Sample ID R6-146-C-Comp |       | Sample Date |       | Sample Depth Range (ft BGS) |       | R6-147-C-Z1a |       | R6-147-C-Comp |       | R6-148-C-Comp |       | R6-148-CR |       | R6-149-C-Comp |       | R6-150-C-Comp |       |
|------------------------------------------------|-------------------------|-------|-------------|-------|-----------------------------|-------|--------------|-------|---------------|-------|---------------|-------|-----------|-------|---------------|-------|---------------|-------|
|                                                | 7/2/2010                | 0-1.1 | 7/1/2010    | 0-0.5 | 7/1/2010                    | 0-0.8 | 7/1/2010     | 0-0.9 | 7/1/2010      | 0-0.9 | 7/1/2010      | 0-0.9 | 7/1/2010  | 0-0.9 | 7/1/2010      | 0-0.9 | 7/1/2010      | 0-0.9 |
| <b>Metals by C200.7 (mg/kg)</b>                |                         |       |             |       |                             |       |              |       |               |       |               |       |           |       |               |       |               |       |
| ALUMINUM                                       | 12900 J                 |       | 14400 J     |       | 13100 J                     |       | 10500        |       | 10300         |       | 8700          |       | 12800 J   |       |               |       |               |       |
| ANTIMONY                                       | 0.86 UR                 |       | 0.96 UJ     |       | 0.91 UJ                     |       | 0.73 UJ      |       | 0.73 UJ       |       | 0.71 UJ       |       | 0.88 UJ   |       |               |       |               |       |
| ARSENIC                                        | 9.3 J                   |       | 4.7 J       |       | 5 J                         |       | 4.3 J        |       | 3.6 J         |       | 2.9 J         |       | 4.5 J     |       |               |       |               |       |
| BARUM                                          | 277 J                   |       | 159 J       |       | 163 J                       |       | 103          |       | 101           |       | 94.4          |       | 150 J     |       |               |       |               |       |
| BERYLLIUM                                      | 0.21 J                  |       | 0.53 J      |       | 0.44 J                      |       | 0.4 J        |       | 0.36 J        |       | 0.33 J        |       | 0.44 J    |       |               |       |               |       |
| CADMIUM                                        | 7.8 J                   |       | 1.3 J       |       | 3.3 J                       |       | 1.8 J        |       | 1.6 J         |       | 0.037 UJ      |       | 0.045 UJ  |       |               |       |               |       |
| CALCIUM                                        | 9400 J                  |       | 15000 J     |       | 12100 J                     |       | 27700 J      |       | 12400 J       |       | 10300         |       | 9280 J    |       |               |       |               |       |
| CHROMIUM                                       | 450 J                   |       | 71 J        |       | 128 J                       |       | 60.6         |       | 57.1          |       | 48.5          |       | 69.2 J    |       |               |       |               |       |
| COBALT                                         | 15.2 J                  |       | 0.11 UJ     |       | 14.5 J                      |       | 0.081 UJ     |       | 0.08 UJ       |       | 0.079 UJ      |       | 0.098 UJ  |       |               |       |               |       |
| COPPER                                         | 1530 J                  |       | 147 J       |       | 313 J                       |       | 134          |       | 125           |       | 97.8          |       | 126 J     |       |               |       |               |       |
| IRON                                           | 20300 J                 |       | 20100 J     |       | 20300 J                     |       | 16800        |       | 16100         |       | 14000         |       | 19000 J   |       |               |       |               |       |
| LEAD                                           | 2780 J                  |       | 208 J       |       | 371 J                       |       | 199          |       | 187           |       | 141           |       | 211 J     |       |               |       |               |       |
| MAGNESIUM                                      | 5560 J                  |       | 6900 J      |       | 6030 J                      |       | 4870         |       | 4470          |       | 4250          |       | 5340 J    |       |               |       |               |       |
| MANGANESE                                      | 233 J                   |       | 684 J       |       | 321 J                       |       | 638          |       | 395           |       | 312           |       | 586 J     |       |               |       |               |       |
| NICKEL                                         | 218 J                   |       | 44.4 J      |       | 121 J                       |       | 44.4         |       | 42.4          |       | 41.7          |       | 41.6 J    |       |               |       |               |       |
| POTASSIUM                                      | 1520 J                  |       | 1960 J      |       | 1800 J                      |       | 1410         |       | 1390          |       | 1260          |       | 1870 J    |       |               |       |               |       |
| SELENIUM                                       | 1.4 J                   |       | 1.6 J       |       | 1.5 J                       |       | 1.1 J        |       | 0.88 J        |       | 0.94 J        |       | 1.2 J     |       |               |       |               |       |
| SILVER                                         | 4.1 J                   |       | 1 U         |       | 0.96 U                      |       | 0.77 U       |       | 0.76 U        |       | 0.75 U        |       | 0.93 U    |       |               |       |               |       |
| SODIUM                                         | 6.4 UJ                  |       | 7.1 UJ      |       | 6.8 UJ                      |       | 5.4 UJ       |       | 5.4 UJ        |       | 5.3 UJ        |       | 6.6 UJ    |       |               |       |               |       |
| THALLIUM                                       | 0.67 U                  |       | 0.74 U      |       | 0.7 U                       |       | 0.56 U       |       | 0.56 U        |       | 0.55 U        |       | 0.68 U    |       |               |       |               |       |
| VANADIUM                                       | 37.2 J                  |       | 23.3 J      |       | 26.2 J                      |       | 19.3 J       |       | 18.7 J        |       | 14.9 J        |       | 21.2 J    |       |               |       |               |       |
| ZINC                                           | 4100 J                  |       | 546 J       |       | 1180 J                      |       | 580          |       | 539           |       | 425           |       | 525 J     |       |               |       |               |       |
| <b>Mercury by CV (mg/kg)</b>                   |                         |       |             |       |                             |       |              |       |               |       |               |       |           |       |               |       |               |       |
| MERCURY                                        | 2.3 J                   |       | 0.52 J      |       | 0.52 J                      |       | 0.67 J       |       | 0.24 J        |       | 0.29          |       | 0.39 J    |       |               |       |               |       |
| <b>PCBS by MC ARO (mg/kg)</b>                  |                         |       |             |       |                             |       |              |       |               |       |               |       |           |       |               |       |               |       |
| PCB-1016 (AROCOR 1016)                         | 0.033 U                 |       | 0.076 U     |       | 0.075 U                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCB-1221 (AROCOR 1221)                         | 0.033 U                 |       | 0.076 U     |       | 0.075 U                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCB-1232 (AROCOR 1232)                         | 0.033 U                 |       | 0.076 U     |       | 0.075 U                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCB-1242 (AROCOR 1242)                         | 0.033 U                 |       | 0.076 U     |       | 0.075 U                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCB-1248 (AROCOR 1248)                         | 0.033 U                 |       | 0.12 NJ     |       | 0.4 NJ                      |       | 0.061 U      |       | 0.084 J       |       | 0.089 NJ      |       | 0.075 U   |       |               |       |               |       |
| PCB-1254 (AROCOR 1254)                         | 0.033 U                 |       | 0.11 J      |       | 0.18 NJ                     |       | 0.061 U      |       | 0.056 J       |       | 0.063         |       | 0.06 J    |       |               |       |               |       |
| PCB-1260 (AROCOR 1260)                         | 0.033 U                 |       | 0.059 J     |       | 0.064 J                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCB-1262 (AROCOR 1262)                         | 0.033 U                 |       | 0.076 U     |       | 0.075 U                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCB-1268 (AROCOR 1268)                         | 0.033 U                 |       | 0.076 U     |       | 0.075 U                     |       | 0.061 U      |       | 0.061 U       |       | 0.06 U        |       | 0.075 U   |       |               |       |               |       |
| PCBs (total)                                   | 0.033 U                 |       | 0.29 J      |       | 0.64 J                      |       | 0.061 U      |       | 0.14 J        |       | 0.15 NJ       |       | 0.06 J    |       |               |       |               |       |
| <b>SVOAs by MC SVOA (LS) and (SMS) (mg/kg)</b> |                         |       |             |       |                             |       |              |       |               |       |               |       |           |       |               |       |               |       |
| 2-METHYLNAPHTHALENE                            | 0.02                    |       | 0.077       |       | 0.013                       |       | 0.006        |       | 0.0055        |       | 0.007         |       | 0.075     |       |               |       |               |       |
| ACENAPHTHENE                                   | 0.026 J                 |       | 0.019       |       | 0.012                       |       | 0.0087       |       | 0.0064        |       | 0.015         |       | 0.013     |       |               |       |               |       |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID R6-146-C-Comp |                             | R6-147-C-Z1a |          | R6-147-C-Comp |          | R6-148-C-Comp |          | R6-148-CR |          | R6-149-C-Comp |          | R6-150-C-Comp |          |
|-----------------------------------------|-------------------------|-----------------------------|--------------|----------|---------------|----------|---------------|----------|-----------|----------|---------------|----------|---------------|----------|
|                                         | Sample Date             | Sample Depth Range (ft BGS) | 7/2/2010     | 7/1/2010 | 7/1/2010      | 7/1/2010 | 7/1/2010      | 7/1/2010 | 7/1/2010  | 7/1/2010 | 7/1/2010      | 7/1/2010 | 7/1/2010      | 7/1/2010 |
|                                         |                         |                             | 0-1.1        | 0-0.5    | 0-0.8         | 0-0.9    | 0-0.9         | 0-0.9    | 0-0.9     | 0-0.9    | 0-0.9         | 0-0.9    | 0-0.9         | 0-0.9    |
| ACENAPHTHYLENE                          |                         |                             | 0.13         | 0.035    | 0.039         | 0.016    | 0.016         | 0.016    | 0.023     | 0.023    | 0.026         |          |               |          |
| ANTHRACENE                              |                         |                             | 0.044        | 0.063    | 0.053         | 0.028    | 0.028         | 0.023    | 0.11      | 0.11     | 0.048         |          |               |          |
| BENZO(A)ANTHRACENE                      |                         |                             | 0.21 J       | 0.3 J    | 0.55 J        | 0.14 J   | 0.14 J        | 0.12 J   | 0.18      | 0.18     | 0.2 J         |          |               |          |
| BENZO(A)PYRENE                          |                         |                             | 0.13         | 0.23 J   | 0.3           | 0.12 J   | 0.12 J        | 0.11 J   | 0.061     | 0.061    | 0.18 J        |          |               |          |
| BENZO(B)FLUORANTHENE                    |                         |                             | 0.3          | 0.38     | 0.37          | 0.18     | 0.18          | 0.21     | 0.081     | 0.081    | 0.37          |          |               |          |
| BENZO(K)FLUORANTHENE                    |                         |                             | 0.11         | 0.24     | 0.29          | 0.11     | 0.11          | 0.12     | 0.061     | 0.061    | 0.16          |          |               |          |
| CHRYSENE                                |                         |                             | 0.34         | 0.4      | 0.66          | 0.19     | 0.19          | 0.17     | 0.27      | 0.27     | 0.29          |          |               |          |
| DIBENZ(A,H)ANTHRACENE                   |                         |                             | 0.021 J      | 0.026    | 0.018 J       | 0.016 J  | 0.016 J       | 0.01     | 0.026     | 0.026    | 0.02          |          |               |          |
| FLUORANTHENE                            |                         |                             | 0.58         | 0.47     | 0.24          | 0.2      | 0.2           | 0.27     | 0.43      | 0.43     | 0.47          |          |               |          |
| FLUORENE                                |                         |                             | 0.022        | 0.027    | 0.022         | 0.014    | 0.014         | 0.012    | 0.017     | 0.017    | 0.019         |          |               |          |
| INDENO(1,2,3-C,D)PYRENE                 |                         |                             | 0.036 J      | 0.053    | 0.039         | 0.027    | 0.027         | 0.022    | 0.043     | 0.043    | 0.039         |          |               |          |
| NAPHTHALENE                             |                         |                             | 0.013        | 0.012    | 0.014         | 0.0067   | 0.0067        | 0.0065   | 0.0079    | 0.0079   | 0.0093        |          |               |          |
| PENTACHLOROPHENOL                       |                         | -- J                        | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| PHENANTHRENE                            |                         |                             | 0.14         | 0.31     | 0.46 J        | 0.14     | 0.14          | 0.11     | 0.19      | 0.19     | 0.19          |          |               |          |
| PYRENE                                  |                         |                             | 0.37 J       | 0.49 J   | 0.21 J        | 0.24 J   | 0.24 J        | 0.18 J   | 0.3 J     | 0.3 J    | 0.34 J        |          |               |          |
| PAHs (total)                            |                         |                             | 2.5          | 3.1      | 3.3           | 1.5      | 1.5           | 1.4      | 1.9       | 1.9      | 2.4           |          |               |          |
| Pesticides by MC PEST (mg/kg)           |                         |                             |              |          |               |          |               |          |           |          |               |          |               |          |
| ALDRIN                                  |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ALPHA-CHLORDANE                         |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ALPHA ENDOSULFAN                        |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| BETA ENDOSULFAN                         |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| DIELDRIN                                |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ENDOSULFAN SULFATE                      |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ENDRIN                                  |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ENDRIN ALDEHYDE                         |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| ENDRIN KETONE                           |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| GAMMA BHC (LINDANE)                     |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| GAMMA-CHLORDANE                         |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| HEPTACHLOR                              |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| HEPTACHLOR EPOXIDE                      |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| METHOXYCHLOR                            |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| P,P'-DDD                                |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| P,P'-DDE                                |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| P,P'-DDT                                |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |
| TOXAPHENE                               |                         |                             | --           | --       | --            | --       | --            | --       | --        | --       | --            |          |               |          |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Sample ID                                |                             | R6-151-C-Comp | R6-152-C-Comp | R6-152-CR | R6-153-C-Comp | R6-154-C-Z1a | R6-154-C-Comp | R6-155-C-Comp |
|------------------------------------------|-----------------------------|---------------|---------------|-----------|---------------|--------------|---------------|---------------|
| Sample Date                              | Sample Depth Range (ft BGS) | 7/2/2010      | 7/2/2010      | 7/2/2010  | 7/2/2010      | 7/1/2010     | 7/1/2010      | 7/1/2010      |
| Analyte                                  |                             | 0-0.7         | 0-0.7         | 0-0.7     | 0-0.5         | 0-0.5        | 0-1.1         | 0-0.7         |
| Metals by C200.7 (mg/kg)                 |                             |               |               |           |               |              |               |               |
| ALUMINUM                                 |                             | 12700 J       | 9680 J        | 10000 J   | 10400 J       | 12100 J      | 10400 J       | 12700 J       |
| ANTIMONY                                 |                             | 1.1 UR        | 0.96 UR       | 1 UR      | 1 UJ          | 0.91 UJ      | 0.91 UJ       | 1.2 UJ        |
| ARSENIC                                  |                             | 4.2 J         | 3.9 J         | 3.6 J     | 3.8 J         | 4.5 J        | 4.2 J         | 5.2 J         |
| BARIUM                                   |                             | 147 J         | 142 J         | 142 J     | 123 J         | 127 J        | 126 J         | 144 J         |
| BERYLLIUM                                |                             | 0.36 J        | 0.24 J        | 0.27 J    | 0.3 J         | 0.093 U      | 0.093 U       | 0.13 U        |
| CADMIUM                                  |                             | 0.054 UJ      | 1.4 J         | 0.052 UJ  | 0.052 UJ      | 1.4 J        | 0.047 UJ      | 0.063 UJ      |
| CALCIUM                                  |                             | 11700 J       | 9620 J        | 9700 J    | 10400 J       | 14500 J      | 10300 J       | 12600 J       |
| CHROMIUM                                 |                             | 61.1 J        | 65.2 J        | 65.5 J    | 54.3 J        | 72.1 J       | 58 J          | 65.2 J        |
| COBALT                                   |                             | 0.12 UJ       | 0.11 UJ       | 0.11 UJ   | 0.11 UJ       | 12 J         | 0.1 UJ        | 0.13 UJ       |
| COPPER                                   |                             | 147 J         | 135 J         | 142 J     | 111 J         | 146 J        | 117 J         | 142 J         |
| IRON                                     |                             | 19800 J       | 16700 J       | 16500 J   | 16800 J       | 20600 J      | 17500 J       | 20600 J       |
| LEAD                                     |                             | 189 J         | 188 J         | 189 J     | 162 J         | 233 J        | 179 J         | 212 J         |
| MAGNESIUM                                |                             | 5970 J        | 4800 J        | 4900 J    | 4940 J        | 5640 J       | 4790 J        | 5580 J        |
| MANGANESE                                |                             | 404 J         | 309 J         | 332 J     | 610 J         | 398 J        | 577 J         | 749 J         |
| NICKEL                                   |                             | 35.8 J        | 38.8 J        | 37.7 J    | 31.8 J        | 61.5 J       | 37.6 J        | 39.7 J        |
| POTASSIUM                                |                             | 1740 J        | 1360 J        | 1420 J    | 1510 J        | 1710 J       | 1450 J        | 1870 J        |
| SELENIUM                                 |                             | 1.5 J         | 1.2 J         | 0.97 J    | 0.88 U        | 0.79 UJ      | 0.79 UJ       | 1.1 UJ        |
| SILVER                                   |                             | 1.1 U         | 1 U           | 1.1 U     | 1.1 U         | 0.96 U       | 0.96 U        | 1.3 U         |
| SODIUM                                   |                             | 7.9 UJ        | 7.1 UJ        | 7.6 UJ    | 7.5 UJ        | 210 J        | 191 J         | 247 J         |
| THALLIUM                                 |                             | 0.81 U        | 0.74 U        | 0.78 U    | 0.78 U        | 0.7 U        | 0.7 U         | 0.94 U        |
| VANADIUM                                 |                             | 21 J          | 16.7 J        | 18.1 J    | 17 J          | 19.6 J       | 17.5 J        | 20.8 J        |
| ZINC                                     |                             | 469 J         | 519 J         | 495 J     | 388 J         | 650 J        | 439 J         | 483 J         |
| Mercury by CV (mg/kg)                    |                             |               |               |           |               |              |               |               |
| MERCURY                                  |                             | 0.5 J         | 0.54 J        | 0.49 J    | 0.43 J        | 0.7 J        | 0.43 J        | 0.64 J        |
| PCBS by MC ARO (mg/kg)                   |                             |               |               |           |               |              |               |               |
| PCB-1016 (AROCOR 1016)                   |                             | 0.085 U       | 0.033 U       | 0.033 U   | 0.088 U       | 0.075 U      | 0.094 U       | 0.089 U       |
| PCB-1221 (AROCOR 1221)                   |                             | 0.085 U       | 0.033 U       | 0.033 U   | 0.088 U       | 0.075 U      | 0.094 U       | 0.089 U       |
| PCB-1232 (AROCOR 1232)                   |                             | 0.085 U       | 0.033 U       | 0.033 U   | 0.088 U       | 0.075 U      | 0.094 U       | 0.089 U       |
| PCB-1242 (AROCOR 1242)                   |                             | 0.085 U       | 0.033 U       | 0.033 U   | 0.088 U       | 0.075 U      | 0.094 U       | 0.089 U       |
| PCB-1248 (AROCOR 1248)                   |                             | 0.085 U       | 0.033 U       | 0.045 NJ  | 0.23 J        | 0.075 U      | 0.094 U       | 0.38 J        |
| PCB-1254 (AROCOR 1254)                   |                             | 0.085 U       | 0.033 U       | 0.034 J   | 0.19          | 0.049 J      | 0.094 U       | 0.3 NJ        |
| PCB-1260 (AROCOR 1260)                   |                             | 0.085 U       | 0.02 J        | 0.014 J   | 0.07 J        | 0.021 J      | 0.023 J       | 0.093 NJ      |
| PCB-1262 (AROCOR 1262)                   |                             | 0.085 U       | 0.033 U       | 0.033 U   | 0.088 U       | 0.075 U      | 0.094 U       | 0.089 U       |
| PCB-1268 (AROCOR 1268)                   |                             | 0.085 U       | 0.033 U       | 0.033 U   | 0.088 U       | 0.075 U      | 0.094 U       | 0.089 U       |
| PCBs (total)                             |                             | 0.085 U       | 0.02 J        | 0.093 J   | 0.49 J        | 0.07 J       | 0.023 J       | 0.77 J        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |               |               |           |               |              |               |               |
| 2-METHYLNAPHTHALENE                      |                             | 0.0087 J      | 0.006         | 0.0057    | 0.019         | 0.0085       | 0.009         | 0.011         |
| ACENAPHTHENE                             |                             | 0.013 J       | 0.0087        | 0.013     | 0.033 J       | 0.014        | 0.015         | 0.022         |

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID R6-151-C-Comp |                             | R6-152-C-Comp |          | R6-152-CR |        | R6-153-C-Comp |         | R6-154-C-Z1a |       | R6-155-C-Comp |       |
|-----------------------------------------|-------------------------|-----------------------------|---------------|----------|-----------|--------|---------------|---------|--------------|-------|---------------|-------|
|                                         | Sample Date             | Sample Depth Range (ft BGS) | 7/2/2010      | 0-0.7    | 7/2/2010  | 0-0.7  | 7/2/2010      | 0-0.5   | 7/1/2010     | 0-0.5 | 7/1/2010      | 0-0.7 |
| ACENAPHTHYLENE                          |                         |                             | 0.038 J       | 0.023    | 0.017     | 0.1    | 0.037         | 0.043   |              |       | 0.042         |       |
| ANTHRACENE                              |                         |                             | 0.049         | 0.046    | 0.053 J   | 0.11   | 0.057         | 0.05    |              |       | 0.088         |       |
| BENZO(A)ANTHRACENE                      |                         |                             | 0.2 J         | 0.17 J   | 0.15 J    | 0.38   | 0.22          | 0.14 J  |              |       | 0.33 J        |       |
| BENZO(A)PYRENE                          |                         |                             | 0.055 J       | 0.062    | 0.11      | 0.13   | 0.077         | 0.14 J  |              |       | 0.22 J        |       |
| BENZO(B)FLUORANTHENE                    |                         |                             | 0.059 J       | 0.085    | 0.12      | 0.2    | 0.1           | 0.19    |              |       | 0.27 J        |       |
| BENZO(K)FLUORANTHENE                    |                         |                             | 0.064         | 0.063    | 0.099     | 0.13   | 0.081         | 0.16    |              |       | 0.2           |       |
| CHRYSENE                                |                         |                             | 0.3           | 0.23     | 0.25      | 0.5    | 0.29          | 0.2     |              |       | 0.46          |       |
| DIBENZ(A,H)ANTHRACENE                   |                         |                             | 0.028         | 0.0096 J | 0.017     | 0.038  | 0.047         | 0.018 J |              |       | 0.019         |       |
| FLUORANTHENE                            |                         |                             | 0.42 J        | 0.45     | 0.43      | 0.58   | 0.3           | 0.31    |              |       | 0.81          |       |
| FLUORENE                                |                         |                             | 0.025         | 0.012    | 0.018     | 0.048  | 0.015 J       | 0.024   |              |       | 0.032         |       |
| INDENO(1,2,3-C,D)PYRENE                 |                         |                             | 0.059 J       | 0.017 U  | 0.034 U   | 0.076  | 0.08          | 0.043 J |              |       | 0.035         |       |
| NAPHTHALENE                             |                         |                             | 0.0086        | 0.006    | 0.006     | 0.013  | 0.0089        | 0.0088  |              |       | 0.011         |       |
| PENTACHLOROPHENOL                       |                         |                             | --            | -- J     | --        | --     | --            | --      |              |       | --            |       |
| PHENANTHRENE                            |                         |                             | 0.17          | 0.16     | 0.18      | 0.33   | 0.18          | 0.2     |              |       | 0.39          |       |
| PYRENE                                  |                         |                             | 0.4 J         | 0.26 J   | 0.31 J    | 0.73 J | 0.35 J        | 0.24 J  |              |       | 0.58 J        |       |
| PAHs (total)                            |                         |                             | 2             | 1.6      | 1.8       | 3.5    | 1.9           | 1.8     |              |       | 3.5           |       |
| Pesticides by MC PEST (mg/kg)           |                         |                             |               |          |           |        |               |         |              |       |               |       |
| ALDRIN                                  |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ALPHA-CHLORDANE                         |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ALPHA ENDOSULFAN                        |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| BETA ENDOSULFAN                         |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| DIELDRIN                                |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ENDOSULFAN SULFATE                      |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ENDRIN                                  |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ENDRIN ALDEHYDE                         |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| ENDRIN KETONE                           |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| GAMMA BHC (LINDANE)                     |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| GAMMA-CHLORDANE                         |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| HEPTACHLOR                              |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| HEPTACHLOR EPOXIDE                      |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| METHOXYCHLOR                            |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| P,P'-DDD                                |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| P,P'-DDE                                |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| P,P'-DDT                                |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |
| TOXAPHENE                               |                         |                             | --            | --       | --        | --     | --            | --      |              |       | --            |       |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                        | Sample ID R6-156-C-Comp |                             | R6-157-C-Z1a |          | R6-157-C-Comp |         | R6-158-C-Z1a |       | R6-158-CR |       | R6-158-C-Comp |       | R6-159-C-Z1a |       |
|------------------------------------------------|-------------------------|-----------------------------|--------------|----------|---------------|---------|--------------|-------|-----------|-------|---------------|-------|--------------|-------|
|                                                | Sample Date             | Sample Depth Range (ft BGS) | 7/1/2010     | 0-0.5    | 7/1/2010      | 0-1.2   | 7/1/2010     | 0-0.5 | 7/1/2010  | 0-0.5 | 7/1/2010      | 0-1.4 | 7/1/2010     | 0-0.5 |
| <b>Metals by C200.7 (mg/kg)</b>                |                         |                             |              |          |               |         |              |       |           |       |               |       |              |       |
| ALUMINUM                                       |                         |                             | 8140 J       | 8020     |               | 12700 J | 6090         |       | 5980      |       | 10900 J       |       | 10700 J      |       |
| ANTIMONY                                       |                         |                             | 0.91 UJ      | 0.74 UJ  |               | 0.84 UJ | 0.59 UJ      |       | 0.63 UJ   |       | 0.8 UJ        |       | 0.86 UJ      |       |
| ARSENIC                                        |                         |                             | 3.8 J        | 3.6      |               | 5.5 J   | 3.3          |       | 3.2       |       | 4.2 J         |       | 6.6 J        |       |
| BARIUM                                         |                         |                             | 103 J        | 138      |               | 171 J   | 101          |       | 82.7      |       | 143 J         |       | 131 J        |       |
| BERYLLIUM                                      |                         |                             | 0.094 U      | 0.076 U  |               | 0.086 U | 0.06 U       |       | 0.065 U   |       | 0.082 U       |       | 0.34 J       |       |
| CADMIUM                                        |                         |                             | 0.047 UJ     | 0.038 UJ |               | 2 J     | 0.03 UJ      |       | 0.032 UJ  |       | 1.1 J         |       | 0.044 UJ     |       |
| CALCIUM                                        |                         |                             | 7680 J       | 6770     |               | 12200 J | 5450         |       | 4800      |       | 8560 J        |       | 11100 J      |       |
| CHROMIUM                                       |                         |                             | 45.6 J       | 47.9     |               | 125 J   | 27.3         |       | 26.5      |       | 53.8 J        |       | 44.3 J       |       |
| COBALT                                         |                         |                             | 0.1 UJ       | 0.081 UJ |               | 11.7 J  | 0.065 UJ     |       | 0.07 UJ   |       | 0.088 UJ      |       | 0.095 UJ     |       |
| COPPER                                         |                         |                             | 83.6 J       | 88.8     |               | 253 J   | 50.4         |       | 52.4      |       | 127 J         |       | 95.5 J       |       |
| IRON                                           |                         |                             | 15400 J      | 14300    |               | 20800 J | 11800        |       | 11700     |       | 18300 J       |       | 16100 J      |       |
| LEAD                                           |                         |                             | 152 J        | 137      |               | 464 J   | 116          |       | 93.9      |       | 181 J         |       | 152 J        |       |
| MAGNESIUM                                      |                         |                             | 3560 J       | 3660     |               | 5780 J  | 2550         |       | 2600      |       | 4720 J        |       | 4840 J       |       |
| MANGANESE                                      |                         |                             | 415 J        | 430      |               | 347 J   | 439          |       | 428       |       | 357 J         |       | 600 J        |       |
| NICKEL                                         |                         |                             | 29.3 J       | 27.5     |               | 59 J    | 19.5         |       | 18        |       | 34.5 J        |       | 28.7 J       |       |
| POTASSIUM                                      |                         |                             | 12.4 U       | 1110     |               | 1700 J  | 814 J        |       | 8.6 UJ    |       | 1450 J        |       | 1460 J       |       |
| SELENIUM                                       |                         |                             | 1.4 J        | 1.5 J    |               | 2 J     | 0.8 J        |       | 0.92 J    |       | 1.5 J         |       | 1.4 J        |       |
| SILVER                                         |                         |                             | 0.96 U       | 0.78 U   |               | 1.1 J   | 0.62 U       |       | 0.66 U    |       | 0.84 U        |       | 0.91 U       |       |
| SODIUM                                         |                         |                             | 185 J        | 143 J    |               | 130 J   | 106 J        |       | 107 J     |       | 145 J         |       | 6.4 UJ       |       |
| THALLIUM                                       |                         |                             | 0.7 U        | 0.57 U   |               | 0.65 U  | 0.45 U       |       | 0.49 U    |       | 0.62 U        |       | 0.66 U       |       |
| VANADIUM                                       |                         |                             | 15 J         | 14       |               | 21.8 J  | 11           |       | 11        |       | 17.9 J        |       | 17.2 J       |       |
| ZINC                                           |                         |                             | 383 J        | 315      |               | 825 J   | 202          |       | 191       |       | 430 J         |       | 335 J        |       |
| <b>Mercury by CV (mg/kg)</b>                   |                         |                             |              |          |               |         |              |       |           |       |               |       |              |       |
| MERCURY                                        |                         |                             | 0.41 J       | 0.41     |               | 0.68 J  | 0.46         |       | 0.27      |       | 0.6 J         |       | 0.34 J       |       |
| <b>PCBS by MC ARO (mg/kg)</b>                  |                         |                             |              |          |               |         |              |       |           |       |               |       |              |       |
| PCB-1016 (AROCOR 1016)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCB-1221 (AROCOR 1221)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCB-1232 (AROCOR 1232)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCB-1242 (AROCOR 1242)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCB-1248 (AROCOR 1248)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCB-1254 (AROCOR 1254)                         |                         |                             | 0.044 J      | 0.18 NJ  |               | 0.52 NJ | 0.053 U      |       | 0.055 U   |       | 0.19 NJ       |       | 0.07 U       |       |
| PCB-1260 (AROCOR 1260)                         |                         |                             | 0.03 J       | 0.061 NJ |               | 0.17 J  | 0.053 U      |       | 0.055 U   |       | 0.048 J       |       | 0.02 J       |       |
| PCB-1262 (AROCOR 1262)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCB-1268 (AROCOR 1268)                         |                         |                             | 0.064 U      | 0.057 U  |               | 0.073 U | 0.053 U      |       | 0.055 U   |       | 0.066 U       |       | 0.07 U       |       |
| PCBs (total)                                   |                         |                             | 0.074 J      | 0.48 NJ  |               | 1.2 J   | 0.053 U      |       | 0.055 U   |       | 0.39 J        |       | 0.02 J       |       |
| <b>SVOAs by MC SVOA (LS) and (SMS) (mg/kg)</b> |                         |                             |              |          |               |         |              |       |           |       |               |       |              |       |
| 2-METHYLNAPHTHALENE                            |                         |                             | 0.019        | 0.0057   |               | 0.0077  | 0.0066 J     |       | 0.005 J   |       | 0.012         |       | 0.011        |       |
| ACENAPHTHENE                                   |                         |                             | 0.063        | 0.01     |               | 0.012   | 0.018        |       | 0.0055    |       | 0.016         |       | 0.018        |       |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID R6-156-C-Comp |                             | R6-157-C-Z1a |        | R6-157-C-Comp |         | R6-158-C-Z1a |         | R6-158-CR |        | R6-158-C-Comp |        | R6-159-C-Z1a |        |
|-----------------------------------------|-------------------------|-----------------------------|--------------|--------|---------------|---------|--------------|---------|-----------|--------|---------------|--------|--------------|--------|
|                                         | Sample Date             | Sample Depth Range (ft BGS) | 7/1/2010     | 0-0.5  | 7/1/2010      | 0-1.2   | 7/1/2010     | 0-0.5   | 7/1/2010  | 0-0.5  | 7/1/2010      | 0-1.4  | 7/1/2010     | 0-0.5  |
| ACENAPHTHYLENE                          |                         | 0.05                        | 0.022        | 0.033  | 0.033         | 0.02 J  | 0.02 J       | 0.012 J | 0.031     | 0.033  | 0.031         | 0.031  | 0.033        | 0.033  |
| ANTHRACENE                              |                         | 0.24                        | 0.051        | 0.06   | 0.06          | 0.15 J  | 0.15 J       | 0.064 J | 0.061     | 0.061  | 0.061         | 0.061  | 0.061        | 0.061  |
| BENZO(A)ANTHRACENE                      |                         | 0.28                        | 0.17 J       | 0.17 J | 0.17 J        | 0.19    | 0.19         | 0.083   | 0.2 J     | 0.22 J | 0.2 J         | 0.22 J | 0.22 J       | 0.22 J |
| BENZO(A)PYRENE                          |                         | 0.12                        | 0.095 J      | 0.16 J | 0.16 J        | 0.069   | 0.069        | 0.037   | 0.16 J    | 0.19 J | 0.16 J        | 0.16 J | 0.19 J       | 0.19 J |
| BENZO(B)FLUORANTHENE                    |                         | 0.077                       | 0.13         | 0.1    | 0.1           | 0.07    | 0.07         | 0.034   | 0.2       | 0.16   | 0.2           | 0.16   | 0.16         | 0.16   |
| BENZO(K)FLUORANTHENE                    |                         | 0.12                        | 0.09         | 0.085  | 0.085         | 0.053 J | 0.053 J      | 0.042 J | 0.11      | 0.13   | 0.11          | 0.13   | 0.13         | 0.13   |
| CHRYSENE                                |                         | 0.4                         | 0.22         | 0.22   | 0.22          | 0.29    | 0.29         | 0.12    | 0.27      | 0.3    | 0.27          | 0.27   | 0.3          | 0.3    |
| DIBENZ(A,H)ANTHRACENE                   |                         | 0.062                       | 0.014        | 0.022  | 0.022         | 0.031   | 0.031        | 0.015   | 0.014     | 0.021  | 0.014         | 0.014  | 0.021        | 0.021  |
| FLUORANTHENE                            |                         | 0.7                         | 0.35         | 0.38   | 0.38          | 0.43 J  | 0.43 J       | 0.21 J  | 0.51      | 0.55   | 0.51          | 0.51   | 0.55         | 0.55   |
| FLUORENE                                |                         | 0.064                       | 0.017        | 0.028  | 0.028         | 0.022   | 0.022        | 0.0078  | 0.023     | 0.025  | 0.023         | 0.023  | 0.025        | 0.025  |
| INDENO(1,2,3-C,D)PYRENE                 |                         | 0.078                       | 0.028        | 0.039  | 0.039         | 0.045   | 0.045        | 0.026 U | 0.035     | 0.043  | 0.035         | 0.035  | 0.043        | 0.043  |
| NAPHTHALENE                             |                         | 0.034                       | 0.0063       | 0.0076 | 0.0076        | 0.0056  | 0.0056       | 0.005   | 0.0094    | 0.0098 | 0.0094        | 0.0094 | 0.0098       | 0.0098 |
| PENTACHLOROPHENOL                       |                         | --                          | --           | --     | --            | -- J    | -- J         | -- J    | --        | --     | --            | --     | --           | --     |
| PHENANTHRENE                            |                         | 0.43                        | 0.17         | 0.15   | 0.15          | 0.24 J  | 0.24 J       | 0.083 J | 0.23      | 0.25   | 0.23          | 0.23   | 0.25         | 0.25   |
| PYRENE                                  |                         | 0.4 J                       | 0.28 J       | 0.24 J | 0.24 J        | 0.28 J  | 0.28 J       | 0.13 J  | 0.34 J    | 0.36 J | 0.34 J        | 0.34 J | 0.36 J       | 0.36 J |
| PAHs (total)                            |                         | 3.2                         | 1.7          | 1.7    | 1.7           | 2       | 2            | 0.9     | 2.2       | 2.4    | 2.2           | 2.2    | 2.4          | 2.4    |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                         |                             |              |        |               |         |              |         |           |        |               |        |              |        |
| ALDRIN                                  |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ALPHA-CHLORDANE                         |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ALPHA ENDOSULFAN                        |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| BETA ENDOSULFAN                         |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| DIELDRIN                                |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ENDOSULFAN SULFATE                      |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ENDRIN                                  |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ENDRIN ALDEHYDE                         |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| ENDRIN KETONE                           |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| GAMMA BHC (LINDANE)                     |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| GAMMA-CHLORDANE                         |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| HEPTACHLOR                              |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| HEPTACHLOR EPOXIDE                      |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| METHOXYCHLOR                            |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| P,P'-DDD                                |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| P,P'-DDE                                |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| P,P'-DDT                                |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |
| TOXAPHENE                               |                         | --                          | --           | --     | --            | --      | --           | --      | --        | --     | --            | --     | --           | --     |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Sample ID                                |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R6-159-C-Comp |  | R6-160-C-Z1a |  | R6-160-C-Comp |  | R6-161-C-Z1a |  | R6-161-C-Z1 |  | R6-162-C-Comp |  | R6-163-C-Z1a |  | R6-163-C-Z1 |  |
|------------------------------------------|--|-------------|--|-----------------------------|--|---------------|--|--------------|--|---------------|--|--------------|--|-------------|--|---------------|--|--------------|--|-------------|--|
|                                          |  |             |  |                             |  | 7/1/2010      |  | 7/1/2010     |  | 7/1/2010      |  | 7/1/2010     |  | 7/1/2010    |  | 6/30/2010     |  | 6/30/2010    |  | 6/30/2010   |  |
|                                          |  |             |  | 0-1.3                       |  | 0-0.5         |  | 0-1.7        |  | 0-0.5         |  | 0-0.5        |  | 0.5-1.5     |  | 0-0.8         |  | 0-0.5        |  | 0.5-1.4     |  |
| Analyte                                  |  |             |  |                             |  |               |  |              |  |               |  |              |  |             |  |               |  |              |  |             |  |
| Metals by C200.7 (mg/kg)                 |  |             |  |                             |  |               |  |              |  |               |  |              |  |             |  |               |  |              |  |             |  |
| ALUMINUM                                 |  | 10500 J     |  | 17600 J                     |  | 18200 J       |  | 12900 J      |  | 10400 J       |  | 12500 J      |  | 6020        |  | 10700         |  |              |  |             |  |
| ANTIMONY                                 |  | 0.81 UJ     |  | 1.2 UJ                      |  | 1 UJ          |  | 0.94 UJ      |  | 0.84 UJ       |  | 1.1 UJ       |  | 0.56 UJ     |  | 0.69 UJ       |  |              |  |             |  |
| ARSENIC                                  |  | 5.8 J       |  | 11.1 J                      |  | 13.3 J        |  | 5.7 J        |  | 4.7 J         |  | 6.4 J        |  | 12.8 J      |  | 6.5 J         |  |              |  |             |  |
| BARIUM                                   |  | 125 J       |  | 259 J                       |  | 271 J         |  | 136 J        |  | 118 J         |  | 210 J        |  | 45.2        |  | 211           |  |              |  |             |  |
| BERYLLIUM                                |  | 0.084 U     |  | 0.53 J                      |  | 0.53 J        |  | 0.51 J       |  | 0.38 J        |  | 0.46 J       |  | 0.16 J      |  | 0.38 J        |  |              |  |             |  |
| CADMIUM                                  |  | 1.1 J       |  | 14.3 J                      |  | 14.2 J        |  | 0.048 UJ     |  | 6.3 J         |  | 0.043 UJ     |  | 0.029 UJ    |  | 1.2 J         |  |              |  |             |  |
| CALCIUM                                  |  | 10200 J     |  | 15300 J                     |  | 15400 J       |  | 10200 J      |  | 9480 J        |  | 11000 J      |  | 2250        |  | 9140          |  |              |  |             |  |
| CHROMIUM                                 |  | 59.3 J      |  | 1380 J                      |  | 1220 J        |  | 59.8 J       |  | 53.3 J        |  | 325 J        |  | 12.5        |  | 60.3          |  |              |  |             |  |
| COBALT                                   |  | 0.09 UJ     |  | 17.2 J                      |  | 18.4 J        |  | 0.1 UJ       |  | 0.092 UJ      |  | 14.2 J       |  | 0.062 UJ    |  | 9.4           |  |              |  |             |  |
| COPPER                                   |  | 131 J       |  | 1530 J                      |  | 1950 J        |  | 115 J        |  | 134 J         |  | 593 J        |  | 27.7        |  | 149           |  |              |  |             |  |
| IRON                                     |  | 17900 J     |  | 22900 J                     |  | 25400 J       |  | 18400 J      |  | 16800 J       |  | 18900 J      |  | 9260        |  | 17500         |  |              |  |             |  |
| LEAD                                     |  | 212 J       |  | 3240 J                      |  | 4380 J        |  | 166 J        |  | 169 J         |  | 1550 J       |  | 76.2        |  | 201           |  |              |  |             |  |
| MAGNESIUM                                |  | 4670 J      |  | 6900 J                      |  | 7060 J        |  | 4820 J       |  | 4960 J        |  | 5080 J       |  | 1860        |  | 4790          |  |              |  |             |  |
| MANGANESE                                |  | 424 J       |  | 408 J                       |  | 278 J         |  | 568 J        |  | 349 J         |  | 300 J        |  | 240         |  | 387           |  |              |  |             |  |
| NICKEL                                   |  | 37.1 J      |  | 281 J                       |  | 302 J         |  | 33.2 J       |  | 32.2 J        |  | 149 J        |  | 11          |  | 37.3          |  |              |  |             |  |
| POTASSIUM                                |  | 1430 J      |  | 2110 J                      |  | 2110 J        |  | 1620 J       |  | 1380 J        |  | 1680 J       |  | 7.7 UJ      |  | 1290          |  |              |  |             |  |
| SELENIUM                                 |  | 1.5 J       |  | 3.2 J                       |  | 3 J           |  | 1.4 J        |  | 1.2 J         |  | 2.7 J        |  | 0.63 J      |  | 1.4 J         |  |              |  |             |  |
| SILVER                                   |  | 0.86 U      |  | 2.3 J                       |  | 3.5 J         |  | 0.99 U       |  | 0.88 U        |  | 1.1 U        |  | 0.59 U      |  | 0.73 U        |  |              |  |             |  |
| SODIUM                                   |  | 132 J       |  | 8.7 UJ                      |  | 7.7 UJ        |  | 7 UJ         |  | 209 J         |  | 8 UJ         |  | 77.7 J      |  | 135 J         |  |              |  |             |  |
| THALLIUM                                 |  | 0.63 U      |  | 0.9 U                       |  | 0.8 U         |  | 0.72 U       |  | 0.64 U        |  | 0.83 U       |  | 0.43 U      |  | 0.53 U        |  |              |  |             |  |
| VANADIUM                                 |  | 18.1 J      |  | 66.6 J                      |  | 63.5 J        |  | 20.2 J       |  | 18.1 J        |  | 31.5 J       |  | 11          |  | 19.2          |  |              |  |             |  |
| ZINC                                     |  | 462 J       |  | 8800 J                      |  | 9760 J        |  | 391 J        |  | 408 J         |  | 3880 J       |  | 81.5        |  | 516           |  |              |  |             |  |
| Mercury by CV (mg/kg)                    |  |             |  |                             |  |               |  |              |  |               |  |              |  |             |  |               |  |              |  |             |  |
| MERCURY                                  |  | 0.47 J      |  | 1.4 J                       |  | 2.1 J         |  | 0.33 J       |  | 0.46 J        |  | 1.1 J        |  | 0.15        |  | 0.44          |  |              |  |             |  |
| PCBS by MC ARO (mg/kg)                   |  |             |  |                             |  |               |  |              |  |               |  |              |  |             |  |               |  |              |  |             |  |
| PCB-1016 (AROCOR 1016)                   |  | 0.067 U     |  | 0.1 U                       |  | 0.091 U       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1221 (AROCOR 1221)                   |  | 0.067 U     |  | 0.1 U                       |  | 0.091 U       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1232 (AROCOR 1232)                   |  | 0.067 U     |  | 0.1 U                       |  | 0.091 U       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1242 (AROCOR 1242)                   |  | 0.067 U     |  | 0.1 U                       |  | 0.091 U       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1248 (AROCOR 1248)                   |  | 0.18 NJ     |  | 0.1 U                       |  | 0.78 NJ       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1254 (AROCOR 1254)                   |  | 0.16 NJ     |  | 0.1 U                       |  | 0.49          |  | 0.03 J       |  | 0.066 U       |  | 16 J         |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1260 (AROCOR 1260)                   |  | 0.067 J     |  | 0.1 U                       |  | 0.14 J        |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1262 (AROCOR 1262)                   |  | 0.067 U     |  | 0.1 U                       |  | 0.091 U       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCB-1268 (AROCOR 1268)                   |  | 0.067 U     |  | 0.1 U                       |  | 0.091 U       |  | 0.05 U       |  | 0.066 U       |  | 0.095 U      |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| PCBs (total)                             |  | 0.41 J      |  | 0.1 U                       |  | 1.4 J         |  | 0.03 J       |  | 0.066 U       |  | 16 J         |  | 0.046 U     |  | 0.054 U       |  |              |  |             |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |             |  |                             |  |               |  |              |  |               |  |              |  |             |  |               |  |              |  |             |  |
| 2-METHYLNAPHTHALENE                      |  | 0.0058      |  | 0.058                       |  | 0.065         |  | 0.047        |  | 0.0057        |  | 0.017        |  | 0.0049      |  | 0.0047        |  |              |  |             |  |
| ACENAPHTHENE                             |  | 0.024       |  | 0.05                        |  | 0.13          |  | 0.11         |  | 0.014         |  | 0.044        |  | 0.007       |  | 0.0073        |  |              |  |             |  |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Analyte                                 | Sample ID R6-159-C-Comp |         | Sample Date |        | Sample Depth Range (ft BGS) |         | R6-160-C-Comp |          | R6-161-C-Z1a |         | R6-162-C-Comp |       | R6-163-C-Z1a |         |
|-----------------------------------------|-------------------------|---------|-------------|--------|-----------------------------|---------|---------------|----------|--------------|---------|---------------|-------|--------------|---------|
|                                         | 7/1/2010                | 0-1.3   | 7/1/2010    | 0-0.5  | 7/1/2010                    | 0-1.7   | 7/1/2010      | 0-0.5    | 7/1/2010     | 0.5-1.5 | 6/30/2010     | 0-0.8 | 6/30/2010    | 0.5-1.4 |
| ACENAPHTHYLENE                          | 0.028                   | 0.088   | 0.18        | 0.081  | 0.049                       | 0.024   | 0.019         | 0.021    |              |         |               |       |              |         |
| ANTHRACENE                              | 0.19                    | 0.073   | 0.35        | 0.32   | 0.038                       | 0.047   | 0.025         | 0.029    |              |         |               |       |              |         |
| BENZO(A)ANTHRACENE                      | 0.31 J                  | 0.65    | 0.78        | 0.36   | 0.36 J                      | 0.21 J  | 0.057         | 0.13 J   |              |         |               |       |              |         |
| BENZO(A)PYRENE                          | 0.2 J                   | 0.64 J  | 0.63 J      | 0.16   | 0.29                        | 0.095 J | 0.024         | 0.084 J  |              |         |               |       |              |         |
| BENZO(B)FLUORANTHENE                    | 0.16                    | 0.37    | 0.4         | 0.15   | 0.23                        | 0.14    | 0.025         | 0.13     |              |         |               |       |              |         |
| BENZO(K)FLUORANTHENE                    | 0.15                    | 0.29    | 0.4         | 0.17   | 0.18                        | 0.094   | 0.027         | 0.084    |              |         |               |       |              |         |
| CHRYSENE                                | 0.39                    | 1       | 0.99        | 0.54   | 0.47 J                      | 0.26    | 0.078         | 0.16     |              |         |               |       |              |         |
| DIBENZ(A,H)ANTHRACENE                   | 0.02                    | 0.07    | 0.048       | 0.072  | 0.019                       | 0.017 J | 0.01          | 0.0088 J |              |         |               |       |              |         |
| FLUORANTHENE                            | 0.38                    | 0.61    | 0.94        | 1      | 0.63                        | 0.22    | 0.16          | 0.16     |              |         |               |       |              |         |
| FLUORENE                                | 0.033                   | 0.18    | 0.2         | 0.19   | 0.031 J                     | 0.019   | 0.0075        | 0.009    |              |         |               |       |              |         |
| INDENO(1,2,3-C,D)PYRENE                 | 0.047                   | 0.095 J | 0.12        | 0.1    | 0.035 J                     | 0.027 J | 0.017         | 0.017 J  |              |         |               |       |              |         |
| NAPHTHALENE                             | 0.0074                  | 0.024   | 0.029       | 0.051  | 0.014                       | 0.0055  | 0.0049        | 0.005    |              |         |               |       |              |         |
| PENTACHLOROPHENOL                       | --                      | -- J    | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| PHENANTHRENE                            | 0.4                     | 0.36    | 0.72        | 0.78   | 0.078                       | 0.2     | 0.064         | 0.1      |              |         |               |       |              |         |
| PYRENE                                  | 0.49 J                  | 0.86 J  | 1.1 J       | 0.57 J | 0.56 J                      | 0.31 J  | 0.075 J       | 0.21 J   |              |         |               |       |              |         |
| PAHs (total)                            | 2.9                     | 5.6     | 7.2         | 4.8    | 3.1                         | 1.7     | 0.62          | 1.2      |              |         |               |       |              |         |
| Pesticides by MC PEST (mg/kg)           |                         |         |             |        |                             |         |               |          |              |         |               |       |              |         |
| ALDRIN                                  | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ALPHA-CHLORDANE                         | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ALPHA ENDOSULFAN                        | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| BETA ENDOSULFAN                         | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| DIELDRIN                                | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ENDOSULFAN SULFATE                      | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ENDRIN                                  | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ENDRIN ALDEHYDE                         | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| ENDRIN KETONE                           | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| GAMMA BHC (LINDANE)                     | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| GAMMA-CHLORDANE                         | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| HEPTACHLOR                              | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| HEPTACHLOR EPOXIDE                      | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| METHOXYCHLOR                            | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| P,P'-DDD                                | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| P,P'-DDE                                | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| P,P'-DDT                                | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |
| TOXAPHENE                               | --                      | --      | --          | --     | --                          | --      | --            | --       |              |         |               |       |              |         |



Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Sample ID R6-164-C-Z1a R6-164-C-Comp R6-165-C-Z1a R6-165-C-Comp R6-166-C-Z1a R6-166-C-Comp R6-167-C-Z1a R6-167-C-Comp |          |           |           |           |           |           |           |           |           |           |
|-----------------------------------------------------------------------------------------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample Date                                                                                                           |          | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 |
| Sample Depth Range (ft BGS)                                                                                           |          | 0-0.5     | 0-1.4     | 0-0.5     | 0-1.6     | 0-0.5     | 0-0.5     | 0-2.1     | 0-0.5     | 0-1.3     |
| Analyte                                                                                                               |          |           |           |           |           |           |           |           |           |           |
| Metals by C200.7 (mg/kg)                                                                                              |          |           |           |           |           |           |           |           |           |           |
| ALUMINUM                                                                                                              | 8160     | 12200 J   | 14100 J   | 13500 J   | 12500 J   | 13600 J   | 14600 J   | 11900 J   |           |           |
| ANTIMONY                                                                                                              | 0.74 UJ  | 0.78 UJ   | 1.5 UJ    | 1.1 UJ    | 1.1 UJ    | 0.95 UJ   | 1.2 UJ    | 1.1 UJ    |           |           |
| ARSENIC                                                                                                               | 3.1      | 7.8 J     | 4.5 J     | 4.8 J     | 4.5 J     | 5.4 J     | 5.3 J     | 3.6 J     |           |           |
| BARIUM                                                                                                                | 79.8     | 196 J     | 176 J     | 226 J     | 170 J     | 179 J     | 158 J     | 161 J     |           |           |
| BERYLLIUM                                                                                                             | 0.076 U  | 0.08 U    | 0.16 UJ   | 0.11 U    | 0.11 U    | 0.098 U   | 0.12 U    | 0.11 U    |           |           |
| CADMIUM                                                                                                               | 0.038 UJ | 2.2 J     | 0.079 UJ  | 2 J       | 1.5 J     | 2.8 J     | 1.6 J     | 0.056 UJ  |           |           |
| CALCIUM                                                                                                               | 4820     | 9430 J    | 15900 J   | 13000 J   | 12300 J   | 13900 J   | 16000 J   | 11400 J   |           |           |
| CHROMIUM                                                                                                              | 29.2     | 121 J     | 61.3 J    | 95.4 J    | 78.1 J    | 127 J     | 77.5 J    | 64.8 J    |           |           |
| COBALT                                                                                                                | 0.082 UJ | 10.5 J    | 0.17 UJ   | 0.12 UJ   | 0.12 UJ   | 12.8 J    | 0.13 UJ   | 0.12 UJ   |           |           |
| COPPER                                                                                                                | 61.8     | 288 J     | 152 J     | 238 J     | 195 J     | 295 J     | 210 J     | 146 J     |           |           |
| IRON                                                                                                                  | 12500    | 20100 J   | 23000 J   | 21500 J   | 20600 J   | 21600 J   | 23900 J   | 19200 J   |           |           |
| LEAD                                                                                                                  | 83.9     | 326 J     | 218 J     | 350 J     | 252 J     | 422 J     | 273 J     | 203 J     |           |           |
| MAGNESIUM                                                                                                             | 2850     | 5450 J    | 6470 J    | 6180 J    | 6040 J    | 6440 J    | 7260 J    | 5400 J    |           |           |
| MANGANESE                                                                                                             | 244      | 271 J     | 729 J     | 359 J     | 436 J     | 363 J     | 639 J     | 323 J     |           |           |
| NICKEL                                                                                                                | 19.2     | 49.2 J    | 39.4 J    | 55.7 J    | 44.9 J    | 71 J      | 47.9 J    | 42 J      |           |           |
| POTASSIUM                                                                                                             | 982      | 1620 J    | 2120 J    | 1920 J    | 1800 J    | 1800 J    | 2070 J    | 1750 J    |           |           |
| SELENIUM                                                                                                              | 0.65 UJ  | 0.68 UJ   | 1.3 UJ    | 0.96 UJ   | 0.97 UJ   | 0.83 UJ   | 1 UJ      | 0.95 UJ   |           |           |
| SILVER                                                                                                                | 0.78 U   | 1.1 J     | 1.6 UJ    | 1.2 U     | 1.2 U     | 1.4 J     | 1.2 U     | 1.1 U     |           |           |
| SODIUM                                                                                                                | 122 J    | 118 J     | 301 J     | 255 J     | 248 J     | 223 J     | 251 J     | 146 J     |           |           |
| THALLIUM                                                                                                              | 0.57 U   | 0.6 U     | 1.2 UJ    | 0.85 U    | 0.85 U    | 0.73 U    | 0.91 U    | 0.84 U    |           |           |
| VANADIUM                                                                                                              | 13.9     | 21.2 J    | 22 J      | 23.2 J    | 20.2 J    | 23.8 J    | 23.3 J    | 20.8 J    |           |           |
| ZINC                                                                                                                  | 199      | 1050 J    | 507 J     | 888 J     | 575 J     | 929 J     | 624 J     | 498 J     |           |           |
| Mercury by CV (mg/kg)                                                                                                 |          |           |           |           |           |           |           |           |           |           |
| MERCURY                                                                                                               | 0.25     | 1.3 J     | 0.46 J    | 0.68 J    | 1.5 J     | 0.88 J    | 0.72 J    | 0.36 J    |           |           |
| PCBS by MC ARO (mg/kg)                                                                                                |          |           |           |           |           |           |           |           |           |           |
| PCB-1016 (AROCOR 1016)                                                                                                | 0.057 U  | 0.07 U    | 0.094 U   | 0.085 U   | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1221 (AROCOR 1221)                                                                                                | 0.057 U  | 0.07 U    | 0.094 U   | 0.085 U   | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1232 (AROCOR 1232)                                                                                                | 0.057 U  | 0.07 U    | 0.094 U   | 0.085 U   | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1242 (AROCOR 1242)                                                                                                | 0.057 U  | 0.07 U    | 0.094 U   | 0.085 U   | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1248 (AROCOR 1248)                                                                                                | 0.057 U  | 0.07 U    | 0.15 NJ   | 0.11 J    | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1254 (AROCOR 1254)                                                                                                | 0.057 U  | 0.07 U    | 0.13      | 0.098     | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1260 (AROCOR 1260)                                                                                                | 0.057 U  | 0.07 U    | 0.051 J   | 0.027 J   | 0.05 J    | 0.018 J   | 0.026 J   | 0.089 U   |           |           |
| PCB-1262 (AROCOR 1262)                                                                                                | 0.057 U  | 0.07 U    | 0.094 U   | 0.085 U   | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCB-1268 (AROCOR 1268)                                                                                                | 0.057 U  | 0.07 U    | 0.094 U   | 0.085 U   | 0.087 U   | 0.084 U   | 0.083 U   | 0.089 U   |           |           |
| PCBs (total)                                                                                                          | 0.057 U  | 0.07 U    | 0.33 J    | 0.24 J    | 0.05 J    | 0.018 J   | 0.026 J   | 0.089 U   |           |           |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                              |          |           |           |           |           |           |           |           |           |           |
| 2-METHYLNAPHTHALENE                                                                                                   | 0.028    | 0.024     | 0.009     | 0.013     | 0.02      | 0.013     | 0.0087    | 0.008     |           |           |
| ACENAPHTHENE                                                                                                          | 0.0073   | 0.059 J   | 0.014     | 0.026     | 0.041     | 0.035     | 0.016     | 0.012     |           |           |

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Sample ID R6-164-C-Z1a R6-164-C-Comp R6-165-C-Z1a R6-165-C-Comp R6-166-C-Z1a R6-166-C-Comp R6-167-C-Z1a R6-167-C-Comp |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------|--|-----------|---------|---------|-----------|---------|--------|-----------|-------|-------|-----------|-------|-------|--|--|--|
| Sample Date                                                                                                           |  | 6/30/2010 | 0-0.5   | 0-1.4   | 6/30/2010 | 0-0.5   | 0-1.6  | 6/30/2010 | 0-0.5 | 0-2.1 | 6/30/2010 | 0-0.5 | 0-1.3 |  |  |  |
| Sample Depth Range (ft BGS)                                                                                           |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| Analyte                                                                                                               |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ACENAPHTHYLENE                                                                                                        |  | 0.011     | 0.22    | 0.033   | 0.063     | 0.051   | 0.07   | 0.036     |       |       |           |       |       |  |  |  |
| ANTHRACENE                                                                                                            |  | 0.02 J    | 0.2     | 0.067   | 0.084     | 0.22    | 0.14   | 0.061 J   |       |       |           |       |       |  |  |  |
| BENZO(A)ANTHRACENE                                                                                                    |  | 0.036 J   | 0.41    | 0.21 J  | 0.4 J     | 0.45 J  | 0.41 J | 0.32 J    |       |       |           |       |       |  |  |  |
| BENZO(A)PYRENE                                                                                                        |  | 0.047 J   | 0.41 J  | 0.089   | 0.26 J    | 0.35 J  | 0.35 J | 0.34 J    |       |       |           |       |       |  |  |  |
| BENZO(B)FLUORANTHENE                                                                                                  |  | 0.034     | 0.4     | 0.12    | 0.37 J    | 0.43    | 0.19   | 0.32 J    |       |       |           |       |       |  |  |  |
| BENZO(K)FLUORANTHENE                                                                                                  |  | 0.027 J   | 0.26    | 0.099   | 0.24      | 0.22    | 0.21   | 0.26      |       |       |           |       |       |  |  |  |
| CHRYSENE                                                                                                              |  | 0.051     | 0.67    | 0.33    | 0.53      | 0.6     | 0.48   | 0.43      |       |       |           |       |       |  |  |  |
| DIBENZ(A,H)ANTHRACENE                                                                                                 |  | 0.0074 J  | 0.046   | 0.062   | 0.028     | 0.038   | 0.053  | 0.16      |       |       |           |       |       |  |  |  |
| FLUORANTHENE                                                                                                          |  | 0.099     | 0.79    | 0.54    | 0.81      | 0.55    | 0.61   | 0.49      |       |       |           |       |       |  |  |  |
| FLUORENE                                                                                                              |  | 0.0072    | 0.056   | 0.017 J | 0.038     | 0.061 U | 0.042  | 0.021     |       |       |           |       |       |  |  |  |
| INDENO(1,2,3-C,D)PYRENE                                                                                               |  | 0.015 J   | 0.077 J | 0.094   | 0.05      | 0.086   | 0.076  | 0.34      |       |       |           |       |       |  |  |  |
| NAPHTHALENE                                                                                                           |  | 0.0047    | 0.021   | 0.011   | 0.012     | 0.035   | 0.012  | 0.009     |       |       |           |       |       |  |  |  |
| PENTACHLOROPHENOL                                                                                                     |  | --        | --      | --      | --        | --      | --     | -- J      |       |       |           |       |       |  |  |  |
| PHENANTHRENE                                                                                                          |  | 0.05 J    | 0.33    | 0.18    | 0.33      | 0.48    | 0.27   | 0.3       |       |       |           |       |       |  |  |  |
| PYRENE                                                                                                                |  | 0.061 J   | 0.76 J  | 0.32 J  | 0.66 J    | 0.53 J  | 0.54 J | 0.46 J    |       |       |           |       |       |  |  |  |
| PAHs (total)                                                                                                          |  | 0.49      | 4.8     | 2.3     | 4         | 4.1     | 3.6    | 3.9       |       |       |           |       |       |  |  |  |
| Pesticides by MC PEST (mg/kg)                                                                                         |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ALDRIN                                                                                                                |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)                                                                               |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ALPHA-CHLORDANE                                                                                                       |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ALPHA ENDOSULFAN                                                                                                      |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)                                                                                 |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| BETA ENDOSULFAN                                                                                                       |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)                                                                               |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| DIELDRIN                                                                                                              |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ENDOSULFAN SULFATE                                                                                                    |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ENDRIN                                                                                                                |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ENDRIN ALDEHYDE                                                                                                       |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| ENDRIN KETONE                                                                                                         |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| GAMMA BHC (LINDANE)                                                                                                   |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| GAMMA-CHLORDANE                                                                                                       |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| HEPTACHLOR                                                                                                            |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| HEPTACHLOR EPOXIDE                                                                                                    |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| METHOXYCHLOR                                                                                                          |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| P,P'-DDD                                                                                                              |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| P,P'-DDE                                                                                                              |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| P,P'-DDT                                                                                                              |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |
| TOXAPHENE                                                                                                             |  |           |         |         |           |         |        |           |       |       |           |       |       |  |  |  |

Table 4-5a

Summary of Results for Reach 6 Sediment Samples

| Sample ID R6-168-C-Z1a                   |  |           |  |               |  |           |  |              |  |           |  |               |  |           |  |              |  |           |  |              |  |           |  |               |  |
|------------------------------------------|--|-----------|--|---------------|--|-----------|--|--------------|--|-----------|--|---------------|--|-----------|--|--------------|--|-----------|--|--------------|--|-----------|--|---------------|--|
| Sample Date                              |  | 6/30/2010 |  | R6-168-C-Comp |  | 6/30/2010 |  | R6-169-C-Z1a |  | 6/28/2010 |  | R6-169-C-Comp |  | 6/25/2010 |  | R6-170-C-Z1a |  | 6/25/2010 |  | R6-171-C-Z1a |  | 6/25/2010 |  | R6-171-C-Comp |  |
| Sample Depth Range (ft BGS)              |  | 0-0.5     |  | 0-1.3         |  | 0-1.3     |  | 0-0.5        |  | 0-1.4     |  | 0-1.5         |  | 0-0.5     |  | 0-0.5        |  | 0-0.5     |  | 0-1.2        |  | 0-1.2     |  | 0-1.2         |  |
| Analyte                                  |  |           |  |               |  |           |  |              |  |           |  |               |  |           |  |              |  |           |  |              |  |           |  |               |  |
| Metals by C200.7 (mg/kg)                 |  |           |  |               |  |           |  |              |  |           |  |               |  |           |  |              |  |           |  |              |  |           |  |               |  |
| ALUMINUM                                 |  | 13400 J   |  | 8990          |  | 13700 J   |  | 13700 J      |  | 13700 J   |  | 15400 J       |  | 10600 J   |  | 10600 J      |  | 13900 J   |  | 13900 J      |  | 13900 J   |  | 13900 J       |  |
| ANTIMONY                                 |  | 1.1 UJ    |  | 0.75 UJ       |  | 0.98 UJ   |  | 0.92 UJ      |  | 0.94 UJ   |  | 1 UJ          |  | 0.98 UJ   |  | 0.98 UJ      |  | 0.86 UJ   |  | 0.86 UJ      |  | 0.86 UJ   |  | 0.86 UJ       |  |
| ARSENIC                                  |  | 4.7 J     |  | 3.7           |  | 4.6 J     |  | 8 J          |  | 5.7 J     |  | 6.5 J         |  | 3.9 J     |  | 3.9 J        |  | 7.7 J     |  | 7.7 J        |  | 7.7 J     |  | 7.7 J         |  |
| BARIUM                                   |  | 146 J     |  | 113           |  | 189 J     |  | 220 J        |  | 164 J     |  | 197 J         |  | 121 J     |  | 121 J        |  | 202 J     |  | 202 J        |  | 202 J     |  | 202 J         |  |
| BERYLLIUM                                |  | 0.11 U    |  | 0.077 U       |  | 0.1 UJ    |  | 0.095 UJ     |  | 0.096 UJ  |  | 0.1 UJ        |  | 0.1 UJ    |  | 0.1 UJ       |  | 0.088 UJ  |  | 0.088 UJ     |  | 0.088 UJ  |  | 0.088 UJ      |  |
| CADMIUM                                  |  | 0.056 UJ  |  | 2.4 J         |  | 1.7 J     |  | 5.7 J        |  | 2.5 J     |  | 3.2 J         |  | 0.051 UJ  |  | 0.051 UJ     |  | 6.3 J     |  | 6.3 J        |  | 6.3 J     |  | 6.3 J         |  |
| CALCIUM                                  |  | 14600 J   |  | 7750          |  | 10500 J   |  | 11600 J      |  | 10300 J   |  | 12200 J       |  | 11300 J   |  | 11300 J      |  | 11200 J   |  | 11200 J      |  | 11200 J   |  | 11200 J       |  |
| CHROMIUM                                 |  | 66.3 J    |  | 132           |  | 86.1 J    |  | 391 J        |  | 151 J     |  | 286 J         |  | 59.6 J    |  | 59.6 J       |  | 444 J     |  | 444 J        |  | 444 J     |  | 444 J         |  |
| COBALT                                   |  | 0.12 UJ   |  | 10.2          |  | 10.9 J    |  | 14 J         |  | 13.4 J    |  | 13.6 J        |  | 9.1 J     |  | 9.1 J        |  | 15.5 J    |  | 15.5 J       |  | 15.5 J    |  | 15.5 J        |  |
| COPPER                                   |  | 207 J     |  | 185           |  | 206 J     |  | 1360 J       |  | 260 J     |  | 662 J         |  | 160 J     |  | 160 J        |  | 661 J     |  | 661 J        |  | 661 J     |  | 661 J         |  |
| IRON                                     |  | 21600 J   |  | 14800         |  | 21300 J   |  | 21600 J      |  | 21600 J   |  | 23400 J       |  | 16900 J   |  | 16900 J      |  | 22200 J   |  | 22200 J      |  | 22200 J   |  | 22200 J       |  |
| LEAD                                     |  | 251 J     |  | 297           |  | 280 J     |  | 2360 J       |  | 407 J     |  | 1240 J        |  | 178 J     |  | 178 J        |  | 1260 J    |  | 1260 J       |  | 1260 J    |  | 1260 J        |  |
| MAGNESIUM                                |  | 6550 J    |  | 3450          |  | 6600 J    |  | 6310 J       |  | 6260 J    |  | 6960 J        |  | 5850 J    |  | 5850 J       |  | 6280 J    |  | 6280 J       |  | 6280 J    |  | 6280 J        |  |
| MANGANESE                                |  | 454 J     |  | 257           |  | 436 J     |  | 260 J        |  | 450 J     |  | 365 J         |  | 277 J     |  | 277 J        |  | 314 J     |  | 314 J        |  | 314 J     |  | 314 J         |  |
| NICKEL                                   |  | 43.1 J    |  | 92.2          |  | 53 J      |  | 176 J        |  | 82.8 J    |  | 117 J         |  | 38.7 J    |  | 38.7 J       |  | 187 J     |  | 187 J        |  | 187 J     |  | 187 J         |  |
| POTASSIUM                                |  | 1990 J    |  | 1080          |  | 1790 J    |  | 1710 J       |  | 1790 J    |  | 1980 J        |  | 1550 J    |  | 1550 J       |  | 1610 J    |  | 1610 J       |  | 1610 J    |  | 1610 J        |  |
| SELENIUM                                 |  | 0.95 UJ   |  | 0.65 UJ       |  | 0.89 J    |  | 1.5 J        |  | 1.3 J     |  | 1.5 J         |  | 0.86 U    |  | 0.86 U       |  | 1.3 J     |  | 1.3 J        |  | 1.3 J     |  | 1.3 J         |  |
| SILVER                                   |  | 1.1 U     |  | 0.79 J        |  | 1 U       |  | 4.5 J        |  | 1.4 J     |  | 1.8 J         |  | 1 U       |  | 1 U          |  | 2.1 J     |  | 2.1 J        |  | 2.1 J     |  | 2.1 J         |  |
| SODIUM                                   |  | 237 J     |  | 143 J         |  | 7.2 UJ    |  | 6.9 UJ       |  | 7 UJ      |  | 7.4 UJ        |  | 7.3 UJ    |  | 7.3 UJ       |  | 6.4 UJ    |  | 6.4 UJ       |  | 6.4 UJ    |  | 6.4 UJ        |  |
| THALLIUM                                 |  | 0.84 U    |  | 0.58 U        |  | 0.75 U    |  | 0.71 U       |  | 0.72 U    |  | 0.77 U        |  | 0.76 U    |  | 0.76 U       |  | 0.66 UJ   |  | 0.66 UJ      |  | 0.66 UJ   |  | 0.66 UJ       |  |
| VANADIUM                                 |  | 21.5 J    |  | 23.2          |  | 22.8 J    |  | 34.5 J       |  | 28.4 J    |  | 34.7 J        |  | 17.4 J    |  | 17.4 J       |  | 40.4 U    |  | 40.4 U       |  | 40.4 U    |  | 40.4 U        |  |
| ZINC                                     |  | 572 J     |  | 735           |  | 685 J     |  | 2590 J       |  | 1080 J    |  | 1680 J        |  | 446 J     |  | 446 J        |  | 3760 J    |  | 3760 J       |  | 3760 J    |  | 3760 J        |  |
| Mercury by CV (mg/kg)                    |  |           |  |               |  |           |  |              |  |           |  |               |  |           |  |              |  |           |  |              |  |           |  |               |  |
| MERCURY                                  |  | 0.44 J    |  | 0.37          |  | 0.67 J    |  | 2.1 J        |  | 0.64 J    |  | 1.2 J         |  | 0.63 J    |  | 0.63 J       |  | 1.1 J     |  | 1.1 J        |  | 1.1 J     |  | 1.1 J         |  |
| PCBS by MC ARO (mg/kg)                   |  |           |  |               |  |           |  |              |  |           |  |               |  |           |  |              |  |           |  |              |  |           |  |               |  |
| PCB-1016 (AROCOR 1016)                   |  | 0.094 U   |  | 0.064 U       |  | 0.082 U   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.094 U   |  | 0.094 U      |  | 0.072 U   |  | 0.072 U      |  | 0.072 U   |  | 0.072 U       |  |
| PCB-1221 (AROCOR 1221)                   |  | 0.094 U   |  | 0.064 U       |  | 0.082 U   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.094 U   |  | 0.094 U      |  | 0.072 U   |  | 0.072 U      |  | 0.072 U   |  | 0.072 U       |  |
| PCB-1232 (AROCOR 1232)                   |  | 0.094 U   |  | 0.064 U       |  | 0.082 U   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.094 U   |  | 0.094 U      |  | 0.072 U   |  | 0.072 U      |  | 0.072 U   |  | 0.072 U       |  |
| PCB-1242 (AROCOR 1242)                   |  | 0.094 U   |  | 0.064 U       |  | 0.082 U   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.094 U   |  | 0.094 U      |  | 0.072 U   |  | 0.072 U      |  | 0.072 U   |  | 0.072 U       |  |
| PCB-1248 (AROCOR 1248)                   |  | 0.19 NJ   |  | 0.064 U       |  | 0.14 J    |  | 0.15 J       |  | 0.34 J    |  | 0.14 NJ       |  | 0.88 J    |  | 0.88 J       |  | 0.37 J    |  | 0.37 J       |  | 0.37 J    |  | 0.37 J        |  |
| PCB-1254 (AROCOR 1254)                   |  | 0.17      |  | 0.064 U       |  | 0.16 J    |  | 0.1          |  | 0.25 J    |  | 0.1 J         |  | 0.49 J    |  | 0.49 J       |  | 0.27 J    |  | 0.27 J       |  | 0.27 J    |  | 0.27 J        |  |
| PCB-1260 (AROCOR 1260)                   |  | 0.063 J   |  | 0.064 U       |  | 0.044 J   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.17 NJ   |  | 0.17 NJ      |  | 0.09 NJ   |  | 0.09 NJ      |  | 0.09 NJ   |  | 0.09 NJ       |  |
| PCB-1262 (AROCOR 1262)                   |  | 0.094 U   |  | 0.064 U       |  | 0.082 U   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.094 U   |  | 0.094 U      |  | 0.072 U   |  | 0.072 U      |  | 0.072 U   |  | 0.072 U       |  |
| PCB-1268 (AROCOR 1268)                   |  | 0.094 U   |  | 0.064 U       |  | 0.082 U   |  | 0.075 U      |  | 0.08 U    |  | 0.087 U       |  | 0.094 U   |  | 0.094 U      |  | 0.072 U   |  | 0.072 U      |  | 0.072 U   |  | 0.072 U       |  |
| PCBs (total)                             |  | 0.42 J    |  | 0.064 U       |  | 0.34 J    |  | 0.25 J       |  | 0.59 J    |  | 0.24 J        |  | 1.5 J     |  | 1.5 J        |  | 0.73 J    |  | 0.73 J       |  | 0.73 J    |  | 0.73 J        |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |           |  |               |  |           |  |              |  |           |  |               |  |           |  |              |  |           |  |              |  |           |  |               |  |
| 2-METHYLNAPHTHALENE                      |  | 0.009     |  | 0.0067        |  | 0.02      |  | 0.038        |  | 0.0075    |  | 0.037         |  | 0.012     |  | 0.012        |  | 0.035     |  | 0.035        |  | 0.035     |  | 0.035         |  |
| ACENAPHTHENE                             |  | 0.017     |  | 0.012         |  | 0.034 J   |  | 0.054        |  | 0.012     |  | 0.064         |  | 0.028     |  | 0.028        |  | 0.058     |  | 0.058        |  | 0.058     |  | 0.058         |  |

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

| Sample ID R6-168-C-Z1a R6-168-C-Comp R6-169-C-Z1a R6-170-C-Comp R6-170-C-Z1a R6-171-C-Z1a R6-171-C-Comp |  |           |         |           |         |           |        |           |       |           |       |           |       |           |       |
|---------------------------------------------------------------------------------------------------------|--|-----------|---------|-----------|---------|-----------|--------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| Sample Date                                                                                             |  | 6/30/2010 | 0-1.3   | 6/30/2010 | 0-0.5   | 6/28/2010 | 0-0.5  | 6/28/2010 | 0-1.4 | 6/25/2010 | 0-1.5 | 6/25/2010 | 0-0.5 | 6/25/2010 | 0-1.2 |
| Sample Depth Range (ft BGS)                                                                             |  | 0-0.5     | 0-1.3   | 0-0.5     | 0-1.4   | 0-0.5     | 0-1.5  | 0-0.5     | 0-1.2 | 0-0.5     | 0-1.5 | 0-0.5     | 0-1.2 | 0-0.5     | 0-1.2 |
| Analyte                                                                                                 |  |           |         |           |         |           |        |           |       |           |       |           |       |           |       |
| ACENAPHTHYLENE                                                                                          |  | 0.038     | 0.039   | 0.081     | 0.14    | 0.019     | 0.084  | 0.029     | 0.088 |           |       |           |       |           |       |
| ANTHRACENE                                                                                              |  | 0.047     | 0.033   | 0.18      | 0.18    | 0.053     | 0.2    | 0.092 J   | 0.16  |           |       |           |       |           |       |
| BENZO(A)ANTHRACENE                                                                                      |  | 0.2 J     | 0.15 J  | 0.55      | 0.56    | 0.77      | 0.55   | 1.2       | 0.7   |           |       |           |       |           |       |
| BENZO(A)PYRENE                                                                                          |  | 0.089     | 0.12 J  | 0.5       | 0.41    | 0.51      | 0.45   | 0.55      | 0.55  |           |       |           |       |           |       |
| BENZO(B)FLUORANTHENE                                                                                    |  | 0.14      | 0.2     | 0.58      | 0.75    | 0.54      | 0.56   | 0.3       | 0.6   |           |       |           |       |           |       |
| BENZO(K)FLUORANTHENE                                                                                    |  | 0.1       | 0.11    | 0.39      | 0.28 J  | 0.54      | 0.25   | 0.53      | 0.3   |           |       |           |       |           |       |
| CHRYSENE                                                                                                |  | 0.34      | 0.21    | 0.68 J    | 0.56 U  | 0.47      | 0.67 J | 1.3       | 0.81  |           |       |           |       |           |       |
| DIBENZ(A,H)ANTHRACENE                                                                                   |  | 0.054     | 0.014 J | 0.076     | 0.075 J | 0.038     | 0.075  | 0.062     | 0.085 |           |       |           |       |           |       |
| FLUORANTHENE                                                                                            |  | 0.73      | 0.23    | 0.68      | 0.86    | 0.5       | 0.81   | 0.77      | 0.82  |           |       |           |       |           |       |
| FLUORENE                                                                                                |  | 0.019 J   | 0.023   | 0.04      | 0.11    | 0.022     | 0.072  | 0.038     | 0.096 |           |       |           |       |           |       |
| INDENO(1,2,3-C,D)PYRENE                                                                                 |  | 0.11      | 0.034   | 0.11      | 0.1     | 0.066 J   | 0.11   | 0.21      | 0.12  |           |       |           |       |           |       |
| NAPHTHALENE                                                                                             |  | 0.011     | 0.0081  | 0.022     | 0.027   | 0.0079    | 0.025  | 0.011     | 0.027 |           |       |           |       |           |       |
| PENTACHLOROPHENOL                                                                                       |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| PHENANTHRENE                                                                                            |  | 0.23      | 0.15    | 0.46      | 0.43 J  | 0.28      | 0.62   | 0.43      | 0.32  |           |       |           |       |           |       |
| PYRENE                                                                                                  |  | 0.32 J    | 0.24 J  | 0.83 J    | 0.74 J  | 0.47 J    | 0.79 J | 0.74 J    | 0.85  |           |       |           |       |           |       |
| PAHs (total)                                                                                            |  | 2.6       | 1.6     | 5.3       | 5.3     | 4.5       | 5.5    | 6.5       | 5.7   |           |       |           |       |           |       |
| Pesticides by MC PEST (mg/kg)                                                                           |  |           |         |           |         |           |        |           |       |           |       |           |       |           |       |
| ALDRIN                                                                                                  |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)                                                                 |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ALPHA-CHLORDANE                                                                                         |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ALPHA ENDOSULFAN                                                                                        |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)                                                                   |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| BETA ENDOSULFAN                                                                                         |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)                                                                 |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| DIELDRIN                                                                                                |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ENDOSULFAN SULFATE                                                                                      |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ENDRIN                                                                                                  |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ENDRIN ALDEHYDE                                                                                         |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| ENDRIN KETONE                                                                                           |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| GAMMA BHC (LINDANE)                                                                                     |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| GAMMA-CHLORDANE                                                                                         |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| HEPTACHLOR                                                                                              |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| HEPTACHLOR EPOXIDE                                                                                      |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| METHOXYCHLOR                                                                                            |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| P,P'-DDD                                                                                                |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| P,P'-DDE                                                                                                |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| P,P'-DDT                                                                                                |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |
| TOXAPHENE                                                                                               |  | --        | --      | --        | --      | --        | --     | --        | --    |           |       |           |       |           |       |

Table 4-5a  
Summary of Results for Reach 6 Sediment Samples

Key:

BGS = Below ground surface (in this case below top of sediment surface).  
 -C = Hand-core creek location/sample.  
 -Comp = Hand-core creek composite sample.  
 -CR= Hand-core creek duplicate sample.  
 ft = Feet.  
 J = Estimated at the concentration listed.  
 mg/Kg = Milligrams per kilogram.  
 NJ = Estimated.  
 PCB = Polychlorinated biphenyl.  
 SVOA = Semivolatile organic compounds analysis.  
 -T = Tributary location/sample.  
 U = Non-detect.  
 UJ = Non-detect/estimated.  
 -Z = Sample depth interval consecutively numbered.  
 -- = Not submitted for this parameter.

Table 4-5b  
Summary of Results for Reach 6 Soil Samples

|                                                 | Sample ID<br>Sample Date<br>Sample Depth Range (ft BGS) | R6-117-W<br>12/2/2009<br>0-0.5 | R6-128-H<br>12/2/2009<br>0-0.5 | R6-129-H<br>12/2/2009<br>0-0.5 |
|-------------------------------------------------|---------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Analyte</b>                                  |                                                         |                                |                                |                                |
| <b>Metals by C200.7 (mg/kg)</b>                 |                                                         |                                |                                |                                |
| ALUMINUM                                        |                                                         | 9190                           | 9270                           | 11500                          |
| ANTIMONY                                        |                                                         | 1.4 J                          | 1.2 U                          | 1.3 J                          |
| ARSENIC                                         |                                                         | 6.8                            | 5.3 J+                         | 12                             |
| BARIUM                                          |                                                         | 190                            | 128                            | 284                            |
| BERYLLIUM                                       |                                                         | 0.71 J+                        | 0.62 J+                        | 0.77 J+                        |
| CADMIUM                                         |                                                         | 0.059 UJ                       | 0.94 J-                        | 0.077 UJ                       |
| CALCIUM                                         |                                                         | 3850                           | 5920                           | 4850                           |
| CHROMIUM                                        |                                                         | 72                             | 199                            | 95.3                           |
| COBALT                                          |                                                         | 10.6                           | 12.3                           | 10.7                           |
| COPPER                                          |                                                         | 186                            | 301                            | 210                            |
| IRON                                            |                                                         | 20700                          | 20000                          | 23300                          |
| LEAD                                            |                                                         | 299                            | 433                            | 359                            |
| MAGNESIUM                                       |                                                         | 3820                           | 4070                           | 3990                           |
| MANGANESE                                       |                                                         | 567 J                          | 594 J                          | 512 J                          |
| NICKEL                                          |                                                         | 41.7                           | 106                            | 37.8                           |
| POTASSIUM                                       |                                                         | 832                            | 14 U                           | 883                            |
| SELENIUM                                        |                                                         | 2.6 J+                         | 2.6 J+                         | 2.5 J+                         |
| SILVER                                          |                                                         | 0.11 UJ                        | 0.13 UJ                        | 0.14 UJ                        |
| SODIUM                                          |                                                         | 193 J                          | 256 J                          | 222 J                          |
| THALLIUM                                        |                                                         | 0.38 U                         | 0.46 U                         | 0.49 U                         |
| VANADIUM                                        |                                                         | 20.7                           | 28.4                           | 24.2                           |
| ZINC                                            |                                                         | 543                            | 1280                           | 557                            |
| <b>Mercury by CV (mg/kg)</b>                    |                                                         |                                |                                |                                |
| MERCURY                                         |                                                         | 2.5                            | 0.64                           | 1.9                            |
| <b>PCBS by MC ARO (mg/kg)</b>                   |                                                         |                                |                                |                                |
| PCB-1016 (AROCLOR 1016)                         |                                                         | 0.011 U                        | 0.012 U                        | 0.012 U                        |
| PCB-1221 (AROCLOR 1221)                         |                                                         | 0.02 U                         | 0.023 U                        | 0.022 U                        |
| PCB-1232 (AROCLOR 1232)                         |                                                         | 0.0072 U                       | 0.0085 U                       | 0.0081 U                       |
| PCB-1242 (AROCLOR 1242)                         |                                                         | 0.0046 U                       | 0.0054 U                       | 0.0051 U                       |
| PCB-1248 (AROCLOR 1248)                         |                                                         | 0.0076 U                       | 0.0089 U                       | 0.0085 U                       |
| PCB-1254 (AROCLOR 1254)                         |                                                         | 0.072 J                        | 0.48                           | 0.0068 U                       |
| PCB-1260 (AROCLOR 1260)                         |                                                         | 0.0089 U                       | 0.01 U                         | 0.01 U                         |
| PCB-1262 (AROCHLOR 1262)                        |                                                         | 0.0085 U                       | 0.01 U                         | 0.0095 U                       |
| PCB-1268 (AROCLOR 1268)                         |                                                         | 0.012 U                        | 0.014 U                        | 0.013 U                        |
| PCBs (total)                                    |                                                         | 0.072                          | 0.48                           | 0.011 U                        |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |                                                         |                                |                                |                                |
| 2-METHYLNAPHTHALENE                             |                                                         | --                             | 0.024                          | --                             |
| ACENAPHTHENE                                    |                                                         | --                             | 0.014                          | --                             |
| ACENAPHTHYLENE                                  |                                                         | --                             | 0.016                          | --                             |
| ANTHRACENE                                      |                                                         | --                             | 0.035                          | --                             |
| BENZO(A)ANTHRACENE                              |                                                         | --                             | 0.37                           | --                             |
| BENZO(A)PYRENE                                  |                                                         | --                             | 0.35                           | --                             |
| BENZO(B)FLUORANTHENE                            |                                                         | --                             | 0.34                           | --                             |
| BENZO(K)FLUORANTHENE                            |                                                         | --                             | 0.32                           | --                             |
| CHRYSENE                                        |                                                         | --                             | 0.42 J                         | --                             |
| DIBENZ(A,H)ANTHRACENE                           |                                                         | --                             | 0.095                          | --                             |
| FLUORANTHENE                                    |                                                         | --                             | 0.55                           | --                             |
| FLUORENE                                        |                                                         | --                             | 0.017                          | --                             |

Table 4-5b  
Summary of Results for Reach 6 Soil Samples

|                                         | Sample ID   | R6-117-W  | R6-128-H  | R6-129-H  |
|-----------------------------------------|-------------|-----------|-----------|-----------|
|                                         | Sample Date | 12/2/2009 | 12/2/2009 | 12/2/2009 |
| Sample Depth Range (ft BGS)             |             | 0-0.5     | 0-0.5     | 0-0.5     |
| <b>Analyte</b>                          |             |           |           |           |
| INDENO(1,2,3-C,D)PYRENE                 |             | --        | 0.29      | --        |
| NAPHTHALENE                             |             | --        | 0.026 J   | --        |
| PENTACHLOROPHENOL                       |             | --        | 0.013     | --        |
| PHENANTHRENE                            |             | --        | 0.22      | --        |
| PYRENE                                  |             | --        | 0.64      | --        |
| PAHs (total)                            |             | --        | 4         | --        |
| <b>Pesticides by MC PEST (mg/kg)</b>    |             |           |           |           |
| ALDRIN                                  |             | --        | 0.00044 U | --        |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |             | --        | 0.00069 U | --        |
| ALPHA-CHLORDANE                         |             | --        | 0.00034 U | --        |
| ALPHA ENDOSULFAN                        |             | --        | 0.0045 J  | --        |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |             | --        | 0.0009 U  | --        |
| BETA ENDOSULFAN                         |             | --        | 0.022 J   | --        |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |             | --        | 0.0059 J  | --        |
| DIELDRIN                                |             | --        | 0.015 J   | --        |
| ENDOSULFAN SULFATE                      |             | --        | 0.00081 U | --        |
| ENDRIN                                  |             | --        | 0.00081 U | --        |
| ENDRIN ALDEHYDE                         |             | --        | 0.0066    | --        |
| ENDRIN KETONE                           |             | --        | 0.0031 U  | --        |
| GAMMA BHC (LINDANE)                     |             | --        | 0.00065 U | --        |
| GAMMA-CHLORDANE                         |             | --        | 0.031     | --        |
| HEPTACHLOR                              |             | --        | 0.0041 J  | --        |
| HEPTACHLOR EPOXIDE                      |             | --        | 0.00058 U | --        |
| METHOXYCHLOR                            |             | --        | 0.0025 U  | --        |
| P,P'-DDD                                |             | --        | 0.0018    | --        |
| P,P'-DDE                                |             | --        | 0.027 J   | --        |
| P,P'-DDT                                |             | --        | 0.0094 U  | --        |
| TOXAPHENE                               |             | --        | 0.13 U    | --        |

Key:

BGS = Below ground surface.  
ft = Feet.  
J = Estimated at the concentration listed.  
-H = Historical channel location/sample.  
mg/Kg = Milligrams per kilogram.  
PCB = Polychlorinated biphenyl.  
SVOA = Semivolatile organic compounds analysis.  
U = Non-detect.  
UJ = Non-detect/estimated.  
-W = Wetland location/sample.  
-- = Not submitted for this parameter.

Table 4-6a

Summary of Results for Reach 7 Sediment Samples

| Analyte                                         | Sample ID  |         | Sample Date |         | Sample Depth Range (ft BGS) |          | R7-068-C   | R7-068-CR | R7-069-C   | R7-070-C | R7-071-C   | R7-072-C | R7-073-C   | R7-074-C |
|-------------------------------------------------|------------|---------|-------------|---------|-----------------------------|----------|------------|-----------|------------|----------|------------|----------|------------|----------|
|                                                 | 11/25/2009 | 0-2.1   | 11/25/2009  | 0-2.1   | 11/25/2009                  | 0-2.1    | 11/25/2009 | 0-2.1     | 11/25/2009 | 0-2.4    | 11/25/2009 | 0-0.8    | 11/24/2009 | 0-2.3    |
| <b>Metals by C200.7 (mg/kg)</b>                 |            |         |             |         |                             |          |            |           |            |          |            |          |            |          |
| ALUMINUM                                        | 16000      | 1.9 U   | 13600       | 1.9 U   | 13800                       | 2 U      | 10900      | 12100     | 9050       | 10200    | 9270       |          |            |          |
| ANTIMONY                                        | 11.9 J+    | 11.3 J+ | 7 J+        | 4.3 J+  | 4.5 J+                      | 5.7 J+   | 5.3        | 6.4       |            |          |            |          |            |          |
| ARSENIC                                         | 261        | 205     | 195         | 180     | 258                         | 223      | 207        |           |            |          |            |          |            |          |
| BARIUM                                          | 0.78 J+    | 0.74 J+ | 0.78 J+     | 0.61 J+ | 0.58 J+                     | 0.57 J   | 0.56 J+    |           |            |          |            |          |            |          |
| BERYLLIUM                                       | 8.3 J-     | 7.8 J-  | 4.7         | 2.5     | 2.3 J-                      | 3.1      | 2.6        | 1.6       |            |          |            |          |            |          |
| CADMIUM                                         | 11100      | 10600   | 13900       | 11900   | 15000                       | 7780     | 12800      | 10200     |            |          |            |          |            |          |
| CALCIUM                                         | 703        | 638     | 349         | 109     | 147                         | 191      | 186        | 100       |            |          |            |          |            |          |
| CHROMIUM                                        | 19.1       | 17.9    | 12.9        | 10.6 J  | 11.4 J                      | 9.9      | 11.3       | 9.2       |            |          |            |          |            |          |
| COBALT                                          | 1000       | 985     | 652         | 257     | 338                         | 599      | 471        | 301       |            |          |            |          |            |          |
| COPPER                                          | 24400      | 22800   | 23800       | 21200   | 22800                       | 19900    | 19000      | 19200     |            |          |            |          |            |          |
| IRON                                            | 1770 J+    | 1650 J+ | 1250 J+     | 358 J+  | 399 J+                      | 790 J+   | 528 J+     | 382 J+    |            |          |            |          |            |          |
| LEAD                                            | 6210       | 5760    | 6750        | 5760    | 6950                        | 4620     | 5980       | 5440      |            |          |            |          |            |          |
| MAGNESIUM                                       | 269        | 252     | 329         | 311     | 426                         | 264      | 240        | 286       |            |          |            |          |            |          |
| MANGANESE                                       | 264        | 245     | 121         | 67.7    | 70.7                        | 97.5     | 106        | 61.7      |            |          |            |          |            |          |
| NICKEL                                          | 1660       | 1450    | 1640        | 1350    | 1600                        | 996      | 1150       | 1040      |            |          |            |          |            |          |
| POTASSIUM                                       | 2.8 J      | 2.7 J   | 1.2 U       | 1 U     | 1.1 U                       | 0.72 U   | 1 U        | 0.74 U    |            |          |            |          |            |          |
| SELENIUM                                        | 2.7 J-     | 1.9 J-  | 1.2 J-      | 0.49 J- | 0.21 UJ                     | 1.6 J-   | 0.89 J     | 0.14 UJ   |            |          |            |          |            |          |
| SILVER                                          | 563 J      | 562 J   | 480 J       | 353 J   | 393 J                       | 282 J    | 319 J      | 326 J     |            |          |            |          |            |          |
| SODIUM                                          | 0.75 U     | 0.75 U  | 0.79 U      | 0.68 U  | 0.75 U                      | 0.47 U   | 0.66 U     | 0.48 U    |            |          |            |          |            |          |
| THALLIUM                                        | 59.1       | 53.4    | 40.8        | 22.4    | 24.4                        | 19.4     | 22.6       | 19.3      |            |          |            |          |            |          |
| VANADIUM                                        | 5980       | 5280    | 2820        | 960     | 977                         | 1220     | 1370       | 769       |            |          |            |          |            |          |
| ZINC                                            |            |         |             |         |                             |          |            |           |            |          |            |          |            |          |
| <b>Mercury by CV (mg/kg)</b>                    |            |         |             |         |                             |          |            |           |            |          |            |          |            |          |
| MERCURY                                         | 1.1        | 1.6     | 1.2         | 0.45    | 0.68                        | 1.7      | 2.3        | 0.88      |            |          |            |          |            |          |
| <b>PCBS by MC ARO (mg/kg)</b>                   |            |         |             |         |                             |          |            |           |            |          |            |          |            |          |
| PCB-1016 (AROCOR 1016)                          | 0.022 U    | 0.19 U  | 0.02 U      | 0.021 U | 0.023 U                     | 0.016 U  | 0.019 U    | 0.015 U   |            |          |            |          |            |          |
| PCB-1221 (AROCOR 1221)                          | 0.041 U    | 0.35 U  | 0.038 U     | 0.039 U | 0.044 U                     | 0.03 U   | 0.036 U    | 0.029 U   |            |          |            |          |            |          |
| PCB-1232 (AROCOR 1232)                          | 0.015 U    | 0.13 U  | 0.014 U     | 0.014 U | 0.016 U                     | 0.011 U  | 0.013 U    | 0.011 U   |            |          |            |          |            |          |
| PCB-1242 (AROCOR 1242)                          | 0.0095 U   | 0.082 U | 0.0089 U    | 0.009 U | 0.01 U                      | 0.0071 U | 0.0083 U   | 0.0067 U  |            |          |            |          |            |          |
| PCB-1248 (AROCOR 1248)                          | 0.016 U    | 0.13 U  | 0.015 U     | 0.015 U | 0.017 U                     | 0.012 U  | 0.014 U    | 0.011 U   |            |          |            |          |            |          |
| PCB-1254 (AROCOR 1254)                          | 3.6 J      | 11 J    | 1.9         | 0.46    | 4.2                         | 3.9      | 4.4        | 4.3 J     |            |          |            |          |            |          |
| PCB-1260 (AROCOR 1260)                          | 0.018 U    | 0.16 U  | 0.017 U     | 0.017 U | 0.02 U                      | 0.014 U  | 0.016 U    | 0.013 U   |            |          |            |          |            |          |
| PCB-1262 (AROCOR 1262)                          | 0.018 U    | 0.15 U  | 0.016 U     | 0.017 U | 0.019 U                     | 0.013 U  | 0.015 U    | 0.012 U   |            |          |            |          |            |          |
| PCB-1268 (AROCOR 1268)                          | 0.024 U    | 0.21 U  | 0.023 U     | 0.023 U | 0.026 U                     | 0.018 U  | 0.021 U    | 0.017 U   |            |          |            |          |            |          |
| PCBs (total)                                    | 3.6        | 11      | 1.9         | 0.46    | 4.2                         | 3.9      | 4.4        | 4.3       |            |          |            |          |            |          |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |            |         |             |         |                             |          |            |           |            |          |            |          |            |          |
| 2-METHYLNAPHTHALENE                             | 0.18       | 0.099   | --          | --      | --                          | --       | 0.53       | --        |            |          |            |          |            |          |
| ACENAPHTHENE                                    | 0.21       | 0.14    | --          | --      | --                          | --       | 5.7 J      | --        |            |          |            |          |            |          |
| ACENAPHTHYLENE                                  | 0.18       | 0.11    | --          | --      | --                          | --       | 4.8        | --        |            |          |            |          |            |          |

Key at the end of table

Table Page 1 of 31 Pages



Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R7-068-C  | R7-068-CR | R7-069-C | R7-070-C | R7-071-C | R7-072-C | R7-073-C  | R7-074-C |
|-----------------------------------------|-----------|--|-------------|--|-----------------------------|--|-----------|-----------|----------|----------|----------|----------|-----------|----------|
|                                         |           |  |             |  |                             |  | 0-2.1     | 0-2.1     | 0-2.4    | 0-2.4    | 0-1.5    | 0-0.8    | 0-2.4     | 0-2.3    |
| ANTHRACENE                              |           |  |             |  |                             |  | 0.18 J    | 0.11 J    | --       | --       | --       | --       | 14        | --       |
| BENZO(A)ANTHRACENE                      |           |  |             |  |                             |  | 2.9 J     | 1.2 J     | --       | --       | --       | --       | 40        | --       |
| BENZO(A)PYRENE                          |           |  |             |  |                             |  | 1.8 J     | 0.73 J    | --       | --       | --       | --       | 22        | --       |
| BENZO(B)FLUORANTHENE                    |           |  |             |  |                             |  | 1.5 J     | 0.64      | --       | --       | --       | --       | 25        | --       |
| BENZO(K)FLUORANTHENE                    |           |  |             |  |                             |  | 1 J       | 0.67 J    | --       | --       | --       | --       | 16        | --       |
| CHRYSENE                                |           |  |             |  |                             |  | 2.9 J     | 1.3 J     | --       | --       | --       | --       | 28        | --       |
| DIBENZ(A,H)ANTHRACENE                   |           |  |             |  |                             |  | 0.28 J    | 0.6       | --       | --       | --       | --       | 16        | --       |
| FLUORANTHENE                            |           |  |             |  |                             |  | 3 --      | 0.76      | --       | --       | --       | --       | 72 J      | --       |
| FLUORENE                                |           |  |             |  |                             |  | 0.4       | 0.22      | --       | --       | --       | --       | 5.2 J     | --       |
| INDENO(1,2,3-C,D)PYRENE                 |           |  |             |  |                             |  | 0.8       | 0.78      | --       | --       | --       | --       | 33        | --       |
| NAPHTHALENE                             |           |  |             |  |                             |  | 0.17      | 0.13 U    | --       | --       | --       | --       | 1.1 J     | --       |
| PENTACHLOROPHENOL                       |           |  |             |  |                             |  | 0.1 J     | 0.12 J    | --       | --       | --       | --       | 0.15      | --       |
| PHENANTHRENE                            |           |  |             |  |                             |  | 0.58 J    | 0.34 J    | --       | --       | --       | --       | 37        | --       |
| PYRENE                                  |           |  |             |  |                             |  | 4.2 --    | 1.9       | --       | --       | --       | --       | 54        | --       |
| PAHs (total)                            |           |  |             |  |                             |  | 20        | 10        | --       | --       | --       | --       | 380       | --       |
| <b>Pesticides by MC PEST (mg/kg)</b>    |           |  |             |  |                             |  |           |           |          |          |          |          |           |          |
| ALDRIN                                  |           |  |             |  |                             |  | 0.00077 U | 0.00066 U | --       | --       | --       | --       | 0.00066 U | --       |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |           |  |             |  |                             |  | 0.0012 U  | 0.001 U   | --       | --       | --       | --       | 0.001 U   | --       |
| ALPHA-CHLORDANE                         |           |  |             |  |                             |  | 0.0006 U  | 0.00052 U | --       | --       | --       | --       | 0.00052 U | --       |
| ALPHA ENDOSULFAN                        |           |  |             |  |                             |  | 0.00071 U | 0.00061 U | --       | --       | --       | --       | 0.036 J   | --       |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |           |  |             |  |                             |  | 0.0016 U  | 0.0014 U  | --       | --       | --       | --       | 0.0014 U  | --       |
| BETA ENDOSULFAN                         |           |  |             |  |                             |  | 0.0041 U  | 0.0035 U  | --       | --       | --       | --       | 0.094 J   | --       |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |           |  |             |  |                             |  | 0.0014 U  | 0.0012 U  | --       | --       | --       | --       | 0.33 J    | --       |
| DIELDRIN                                |           |  |             |  |                             |  | 0.0014 U  | 0.0012 U  | --       | --       | --       | --       | 0.078     | --       |
| ENDOSULFAN SULFATE                      |           |  |             |  |                             |  | 0.0014 U  | 0.0012 U  | --       | --       | --       | --       | 0.054 J   | --       |
| ENDRIN                                  |           |  |             |  |                             |  | 0.0014 U  | 0.0012 U  | --       | --       | --       | --       | 0.0012 U  | --       |
| ENDRIN ALDEHYDE                         |           |  |             |  |                             |  | 0.0044 U  | 0.0038 U  | --       | --       | --       | --       | 0.0038 U  | --       |
| ENDRIN KETONE                           |           |  |             |  |                             |  | 0.0055 U  | 0.0047 U  | --       | --       | --       | --       | 0.0047 U  | --       |
| GAMMA BHC (LINDANE)                     |           |  |             |  |                             |  | 0.0011 U  | 0.00098 U | --       | --       | --       | --       | 0.11 J    | --       |
| GAMMA-CHLORDANE                         |           |  |             |  |                             |  | 0.0009 U  | 0.00077 U | --       | --       | --       | --       | 0.18 J    | --       |
| HEPTACHLOR                              |           |  |             |  |                             |  | 0.0015 U  | 0.0013 U  | --       | --       | --       | --       | 0.14      | --       |
| HEPTACHLOR EPOXIDE                      |           |  |             |  |                             |  | 0.001 U   | 0.00087 U | --       | --       | --       | --       | 0.00088 U | --       |
| METHOXYCHLOR                            |           |  |             |  |                             |  | 0.0044 U  | 0.0038 U  | --       | --       | --       | --       | 0.0038 U  | --       |
| P,P'-DDD                                |           |  |             |  |                             |  | 0.0031 U  | 0.0027 J  | --       | --       | --       | --       | 0.0027 J  | --       |
| P,P'-DDE                                |           |  |             |  |                             |  | 0.0019 U  | 0.006 U   | --       | --       | --       | --       | 0.078 J   | --       |
| P,P'-DDT                                |           |  |             |  |                             |  | 0.0053 U  | 0.0046 U  | --       | --       | --       | --       | 0.2 U     | --       |
| TOXAPHENE                               |           |  |             |  |                             |  | 0.22 U    | 0.19 U    | --       | --       | --       | --       | 0.19 U    | --       |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                         | Sample ID |  | Sample Date |          | Sample Depth Range (ft BGS) |         | R7-075-C   | R7-076-C   | R7-077-C   | R7-078-C  | R7-079-C  | R7-080-C  | R7-081-C  | R7-082-C   |
|-------------------------------------------------|-----------|--|-------------|----------|-----------------------------|---------|------------|------------|------------|-----------|-----------|-----------|-----------|------------|
|                                                 |           |  |             |          |                             |         | 11/24/2009 | 11/24/2009 | 11/24/2009 | 12/2/2009 | 12/2/2009 | 12/2/2009 | 12/2/2009 | 11/30/2009 |
|                                                 |           |  | 0-2.1       | 0-2      | 0-1.2                       | 0-4     | 0-2.4      | 0-1.7      | 0-1.6      |           |           |           |           |            |
| <b>Metals by C200.7 (mg/kg)</b>                 |           |  |             |          |                             |         |            |            |            |           |           |           |           |            |
| ALUMINUM                                        |           |  | 13700       | 9010     | 7760                        | 12000   | 8530       | 8150 J     | 6330 J     | 8290 J    |           |           |           |            |
| ANTIMONY                                        |           |  | 2 U         | 1.5 U    | 0.41 U                      | 2 U     | 1.9 J      | 2.1 J      | 1.6 J      | 2.8 J     |           |           |           |            |
| ARSENIC                                         |           |  | 6.4 J+      | 6        | 0.51 U                      | 6.8 J+  | 4.5        | 6.1 J+     | 4.9        | 6 J+      |           |           |           |            |
| BARIUM                                          |           |  | 231         | 191      | 136                         | 210     | 219        | 504 J      | 181 J      | 331 J     |           |           |           |            |
| BERYLLIUM                                       |           |  | 0.7 J+      | 0.53 J   | 0.051 U                     | 0.87 J+ | 0.59 J     | 0.48 J+    | 0.37 J     | 0.54 J+   |           |           |           |            |
| CADMIUM                                         |           |  | 7.1         | 2.7      | 0.051 U                     | 1.6 J-  | 2.2        | 1.1 J-     | 1.9        | 0.88 J-   |           |           |           |            |
| CALCIUM                                         |           |  | 17100       | 12500    | 15200                       | 20400   | 14500      | 7900 J     | 11900 J    | 10300 J   |           |           |           |            |
| CHROMIUM                                        |           |  | 270         | 130      | 89.1                        | 284     | 192        | 106 J      | 119 J      | 98.1 J    |           |           |           |            |
| COBALT                                          |           |  | 19.2        | 9.2 J    | 0.076 U                     | 12.3 J  | 11.8       | 8.2 J      | 10.5       | 8.9       |           |           |           |            |
| COPPER                                          |           |  | 623         | 332      | 280                         | 516     | 392        | 349 J      | 540 J      | 347 J     |           |           |           |            |
| IRON                                            |           |  | 25000       | 17800    | 16900                       | 24600   | 18800      | 18300 J    | 13700 J    | 18300 J   |           |           |           |            |
| LEAD                                            |           |  | 851 J+      | 351 J+   | 288 J+                      | 629     | 481        | 624 J      | 308 J      | 481 J     |           |           |           |            |
| MAGNESIUM                                       |           |  | 7240        | 5890     | 6250                        | 9120    | 6000       | 4760 J     | 5010 J     | 6260 J    |           |           |           |            |
| MANGANESE                                       |           |  | 312         | 298      | 307                         | 480 J   | 282 J      | 331 J      | 226 J      | 189 J     |           |           |           |            |
| NICKEL                                          |           |  | 289         | 64.8     | 48.5                        | 92.1    | 110        | 53.6       | 125        | 50.8      |           |           |           |            |
| POTASSIUM                                       |           |  | 1590        | 1130     | 719 J                       | 24.5 U  | 21.1 U     | 820 J      | 591 J      | 846       |           |           |           |            |
| SELENIUM                                        |           |  | 1.2 U       | 0.94 U   | 1.9 J                       | 3.9 J+  | 2.2 J      | 2.4 J      | 1.9 J      | 1.9 J     |           |           |           |            |
| SILVER                                          |           |  | 4.4 J-      | 0.39 J   | 0.13 U                      | 0.23 UJ | 0.24 J     | 0.65 J-    | 1.8        | 0.67 J-   |           |           |           |            |
| SODIUM                                          |           |  | 472 J       | 310 J    | 48.6 U                      | 475 J   | 726 J      | 3.9 UJ     | 3.3 UJ     | 2.8 UJ    |           |           |           |            |
| THALLIUM                                        |           |  | 0.79 U      | 0.61 U   | 0.31 U                      | 0.81 U  | 0.7 U      | 0.59 U     | 0.5 U      | 0.43 U    |           |           |           |            |
| VANADIUM                                        |           |  | 36.3        | 18.4     | 16.1                        | 37.7    | 21.1       | 17.2       | 13.5       | 17.4      |           |           |           |            |
| ZINC                                            |           |  | 2710        | 897      | 741                         | 1370    | 1220       | 1730 J     | 1090 J     | 858 J     |           |           |           |            |
| <b>Mercury by CV (mg/kg)</b>                    |           |  |             |          |                             |         |            |            |            |           |           |           |           |            |
| MERCURY                                         |           |  | 0.1 U       | 0.67     | 0.095 U                     | 1.1     | 0.4        | 1.5        | 0.52       | 1.8       |           |           |           |            |
| <b>PCBS by MC ARO (mg/kg)</b>                   |           |  |             |          |                             |         |            |            |            |           |           |           |           |            |
| PCB-1016 (AROCOR 1016)                          |           |  | 0.023 UJ    | 0.018 U  | 0.023 U                     | 0.018 U | 0.22 U     | 0.014 U    | 0.014 U    | 0.015 U   |           |           |           |            |
| PCB-1221 (AROCOR 1221)                          |           |  | 0.043 U     | 0.034 U  | 0.043 U                     | 0.035 U | 0.42 U     | 0.027 U    | 0.027 U    | 0.028 U   |           |           |           |            |
| PCB-1232 (AROCOR 1232)                          |           |  | 0.016 U     | 0.013 U  | 0.016 U                     | 0.013 U | 0.15 U     | 0.01 U     | 0.0097 U   | 0.01 U    |           |           |           |            |
| PCB-1242 (AROCOR 1242)                          |           |  | 0.01 U      | 0.0079 U | 0.01 U                      | 0.008 U | 0.096 U    | 0.0063 U   | 0.0062 U   | 0.0064 U  |           |           |           |            |
| PCB-1248 (AROCOR 1248)                          |           |  | 0.017 U     | 0.013 U  | 0.017 U                     | 0.013 U | 0.16 U     | 0.01 U     | 0.01 U     | 0.011 U   |           |           |           |            |
| PCB-1254 (AROCOR 1254)                          |           |  | 1.3         | 6.8 J    | 1.4                         | 0.45    | 7.7 J      | 0.76       | 0.63       | 0.32 J    |           |           |           |            |
| PCB-1260 (AROCOR 1260)                          |           |  | 0.019 UJ    | 0.015 U  | 0.02 U                      | 0.016 U | 0.19 U     | 0.012 U    | 0.012 U    | 0.012 U   |           |           |           |            |
| PCB-1262 (AROCOR 1262)                          |           |  | 0.019 U     | 0.015 U  | 0.019 U                     | 0.015 U | 0.18 U     | 0.012 U    | 0.011 U    | 0.012 U   |           |           |           |            |
| PCB-1268 (AROCOR 1268)                          |           |  | 0.026 U     | 0.02 U   | 0.026 U                     | 0.021 U | 0.25 U     | 0.016 U    | 0.016 U    | 0.017 U   |           |           |           |            |
| PCBs (total)                                    |           |  | 1.3         | 6.8      | 1.4                         | 0.45    | 7.7        | 0.76       | 0.63       | 0.32      |           |           |           |            |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |  |             |          |                             |         |            |            |            |           |           |           |           |            |
| 2-METHYLNAPHTHALENE                             |           |  | 0.1         | --       | --                          | --      | --         | --         | --         | --        |           |           |           |            |
| ACENAPHTHENE                                    |           |  | 0.11        | --       | --                          | --      | --         | --         | --         | --        |           |           |           |            |
| ACENAPHTHYLENE                                  |           |  | 0.11        | --       | --                          | --      | --         | --         | --         | --        |           |           |           |            |

Table 4-6a

Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID |  | Sample Date |     | Sample Depth Range (ft BGS) |     | R7-076-C   | R7-077-C   | R7-078-C  | R7-079-C  | R7-080-C  | R7-081-C  | R7-082-C   |
|-----------------------------------------|-----------|--|-------------|-----|-----------------------------|-----|------------|------------|-----------|-----------|-----------|-----------|------------|
|                                         |           |  |             |     |                             |     | 11/24/2009 | 11/24/2009 | 12/2/2009 | 12/2/2009 | 12/2/2009 | 12/2/2009 | 11/30/2009 |
|                                         |           |  | 0-2.1       | 0-2 | 0-1.2                       | 0-4 | 0-2.4      | 0-1.7      | 0-1.7     | 0-1.6     |           |           |            |
| ANTHRACENE                              |           |  | 0.29        | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| BENZO(A)ANTHRACENE                      |           |  | 2.6         | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| BENZO(A)PYRENE                          |           |  | 0.99        | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| BENZO(B)FLUORANTHENE                    |           |  | 1.7         | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| BENZO(K)FLUORANTHENE                    |           |  | 0.66        | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| CHRYSENE                                |           |  | 2.2         | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| DIBENZ(A,H)ANTHRACENE                   |           |  | 0.39        | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| FLUORANTHENE                            |           |  | 3.6         | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| FLUORENE                                |           |  | 0.16        | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| INDENO(1,2,3-C,D)PYRENE                 |           |  | 0.89        | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| NAPHTHALENE                             |           |  | 0.11 J      | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| PENTACHLOROPHENOL                       |           |  | 0.076       | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| PHENANTHRENE                            |           |  | 0.82 J      | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| PYRENE                                  |           |  | 3.5         | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| PAHs (total)                            |           |  | 18          | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| <b>Pesticides by MC PEST (mg/kg)</b>    |           |  |             |     |                             |     |            |            |           |           |           |           |            |
| ALDRIN                                  |           |  | 0.0008 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |           |  | 0.0013 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ALPHA-CHLORDANE                         |           |  | 0.00063 U   | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ALPHA ENDOSULFAN                        |           |  | 0.00074 U   | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |           |  | 0.0017 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| BETA ENDOSULFAN                         |           |  | 0.0043 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |           |  | 0.0015 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| DIELDRIN                                |           |  | 0.0015 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ENDOSULFAN SULFATE                      |           |  | 0.0015 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ENDRIN                                  |           |  | 0.0015 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ENDRIN ALDEHYDE                         |           |  | 0.0046 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| ENDRIN KETONE                           |           |  | 0.0057 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| GAMMA BHC (LINDANE)                     |           |  | 0.0012 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| GAMMA-CHLORDANE                         |           |  | 0.00094 U   | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| HEPTACHLOR                              |           |  | 0.0015 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| HEPTACHLOR EPOXIDE                      |           |  | 0.0011 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| METHOXYCHLOR                            |           |  | 0.0046 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| P,P'-DDD                                |           |  | 0.0057 J    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| P,P'-DDE                                |           |  | 0.012 U     | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| P,P'-DDT                                |           |  | 0.0055 U    | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |
| TOXAPHENE                               |           |  | 0.23 U      | --  | --                          | --  | --         | --         | --        | --        | --        | --        | --         |

Key at the end of table

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                  | Sample ID   |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R7-082-CR | R7-083-C | R7-084-C | R7-085-C  | R7-086-C | R7-087-C | R7-088-C | R7-089-C |
|------------------------------------------|-------------|--|-------------|--|-----------------------------|--|-----------|----------|----------|-----------|----------|----------|----------|----------|
|                                          | Sample Date |  | Sample Date |  | Sample Depth Range (ft BGS) |  |           |          |          |           |          |          |          |          |
|                                          | Sample Date |  | Sample Date |  | Sample Depth Range (ft BGS) |  |           |          |          |           |          |          |          |          |
| Metals by C200.7 (mg/kg)                 |             |  |             |  |                             |  |           |          |          |           |          |          |          |          |
| ALUMINUM                                 |             |  |             |  |                             |  | 7960 J    | 8840 J   | 5910 J   | 7330 J    | 8300 J   | 9300 J   | 11900    | 9450     |
| ANTIMONY                                 |             |  |             |  |                             |  | 2.3 J     | 1.5 U    | 1.3 U    | 7.9 J     | 2.5 J    | 1.4 U    | 13.3     | 9.8      |
| ARSENIC                                  |             |  |             |  |                             |  | 6.2 J+    | 5 J+     | 6.2      | 5.4 J+    | 4.1      | 5.1 J+   | 12.8     | 8.2      |
| BARIUM                                   |             |  |             |  |                             |  | 256 J     | 172 J    | 110 J    | 233 J     | 219 J    | 211 J    | 357      | 291      |
| BERYLLIUM                                |             |  |             |  |                             |  | 0.53 J+   | 0.51 J+  | 0.39 J   | 0.4 J+    | 0.52 J   | 0.52 J+  | 0.72 J+  | 0.58 J+  |
| CADMIUM                                  |             |  |             |  |                             |  | 0.092 UJ  | 1.7 J-   | 1.2      | 2.8 J-    | 1.3      | 1.8 J-   | 6.7 J-   | 5.3 J-   |
| CALCIUM                                  |             |  |             |  |                             |  | 9750 J    | 17100 J  | 11400 J  | 13200 J   | 16000 J  | 21700 J  | 12700    | 9890     |
| CHROMIUM                                 |             |  |             |  |                             |  | 91.6 J    | 99.5 J   | 86 J     | 195 J     | 115 J    | 141 J    | 335      | 264      |
| COBALT                                   |             |  |             |  |                             |  | 8.8 J     | 10.3     | 7.3 J    | 9.3       | 10.5     | 11.2     | 13.3     | 10.6     |
| COPPER                                   |             |  |             |  |                             |  | 408 J     | 321 J    | 278 J    | 477 J     | 420 J    | 419 J    | 1400     | 1100     |
| IRON                                     |             |  |             |  |                             |  | 17900 J   | 19300 J  | 13600 J  | 16400 J   | 18300 J  | 20200 J  | 24200    | 19600    |
| LEAD                                     |             |  |             |  |                             |  | 416 J     | 345 J    | 279 J    | 534 J     | 351 J    | 445 J    | 1830 J+  | 1500 J+  |
| MAGNESIUM                                |             |  |             |  |                             |  | 5840 J    | 7190 J   | 4710 J   | 5920 J    | 6870 J   | 8580 J   | 7100     | 5500     |
| MANGANESE                                |             |  |             |  |                             |  | 186 J     | 364 J    | 224 J    | 302 J     | 338 J    | 271 J    | 243      | 190      |
| NICKEL                                   |             |  |             |  |                             |  | 49.3      | 58.2     | 47.8     | 105       | 81.2     | 82.6     | 184      | 147      |
| POTASSIUM                                |             |  |             |  |                             |  | 880 J     | 960      | 667 J    | 653 J     | 870 J    | 1030     | 1270     | 936      |
| SELENIUM                                 |             |  |             |  |                             |  | 1.9 J     | 2.4 J    | 1.9 J    | 2.3 J     | 2.9 J    | 2.7 J    | 2.5 J    | 1.7 J    |
| SILVER                                   |             |  |             |  |                             |  | 1.6 J-    | 0.88 J-  | 0.63 J   | 2.4 J-    | 1.3 J    | 2.5 J-   | 3.3 J-   | 2.5 J-   |
| SODIUM                                   |             |  |             |  |                             |  | 3.9 UJ    | 4 UJ     | 3.4 UJ   | 2.9 UJ    | 4.2 UJ   | 3.7 UJ   | 322 J    | 257 J    |
| THALLIUM                                 |             |  |             |  |                             |  | 0.59 U    | 0.61 U   | 0.52 U   | 0.44 U    | 0.64 U   | 0.56 U   | 0.56 U   | 0.48 U   |
| VANADIUM                                 |             |  |             |  |                             |  | 16.8      | 18       | 14       | 18.6      | 17.2     | 20.3     | 29.5     | 22.2     |
| ZINC                                     |             |  |             |  |                             |  | 839 J     | 917 J    | 644 J    | 1610 J    | 858 J    | 1020 J   | 2130     | 1680     |
| Mercury by CV (mg/kg)                    |             |  |             |  |                             |  |           |          |          |           |          |          |          |          |
| MERCURY                                  |             |  |             |  |                             |  | 1.3       | 0.59     | 0.39     | 0.42      | 0.48     | 0.68     | 3.4      | 0.42     |
| PCBS by MC ARO (mg/kg)                   |             |  |             |  |                             |  |           |          |          |           |          |          |          |          |
| PCB-1016 (AROCOR 1016)                   |             |  |             |  |                             |  | 0.015 U   | 0.019 U  | 0.013 U  | 0.017 U   | 0.019 U  | 0.019 U  | 0.16 U   | 0.14 U   |
| PCB-1221 (AROCOR 1221)                   |             |  |             |  |                             |  | 0.028 U   | 0.036 U  | 0.025 U  | 0.031 U   | 0.037 U  | 0.035 U  | 0.3 U    | 0.27 U   |
| PCB-1232 (AROCOR 1232)                   |             |  |             |  |                             |  | 0.01 U    | 0.013 U  | 0.0093 U | 0.011 U   | 0.013 U  | 0.013 U  | 0.11 U   | 0.098 U  |
| PCB-1242 (AROCOR 1242)                   |             |  |             |  |                             |  | 0.0066 U  | 0.0084 U | 0.0059 U | 0.0073 U  | 0.0085 U | 0.0082 U | 0.071 U  | 0.062 U  |
| PCB-1248 (AROCOR 1248)                   |             |  |             |  |                             |  | 0.011 U   | 0.014 U  | 0.0097 U | 0.012 U   | 0.014 U  | 0.013 U  | 0.12 U   | 0.1 U    |
| PCB-1254 (AROCOR 1254)                   |             |  |             |  |                             |  | 1.4       | 1.5 J    | 0.96     | 7.8       | 4.1      | 0.82 J   | 55       | 97       |
| PCB-1260 (AROCOR 1260)                   |             |  |             |  |                             |  | 0.013 U   | 0.016 U  | 0.011 U  | 0.014 U   | 0.016 U  | 0.016 U  | 0.14 U   | 0.12 U   |
| PCB-1262 (AROCOR 1262)                   |             |  |             |  |                             |  | 0.012 U   | 0.015 U  | 0.011 U  | 0.013 U   | 0.016 U  | 0.015 U  | 0.13 U   | 0.11 U   |
| PCB-1268 (AROCOR 1268)                   |             |  |             |  |                             |  | 0.017 U   | 0.022 U  | 0.015 U  | 0.019 U   | 0.022 U  | 0.021 U  | 0.18 U   | 0.16 U   |
| PCBs (total)                             |             |  |             |  |                             |  | 1.4       | 1.5      | 0.96     | 7.8       | 4.1      | 0.82     | 55       | 97       |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |             |  |             |  |                             |  |           |          |          |           |          |          |          |          |
| 2-METHYLNAPHTHALENE                      |             |  |             |  |                             |  | --        | 0.0016 J | --       | 0.00087 J | --       | 0.11     | --       | 1.1 J    |
| ACENAPHTHENE                             |             |  |             |  |                             |  | --        | 0.001 J  | --       | 0.00052 J | --       | 0.11     | --       | 1.1      |
| ACENAPHTHYLENE                           |             |  |             |  |                             |  | --        | 0.0011 J | --       | 0.00073 U | --       | 0.17     | --       | 0.39 J   |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID | Sample Date | Sample Depth Range (ft BGS) | R7-082-CR<br>11/30/2009<br>0-1.6 | R7-083-C<br>11/30/2009<br>0-3.3 | R7-084-C<br>11/30/2009<br>0-3.3 | R7-085-C<br>11/30/2009<br>0-1.6 | R7-086-C<br>11/30/2009<br>0-3.2 | R7-087-C<br>11/30/2009<br>0-2.1 | R7-088-C<br>11/25/2009<br>0-1 | R7-089-C<br>11/25/2009<br>0-2.9 |
|-----------------------------------------|-----------|-------------|-----------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------------------|
| ANTHRACENE                              | --        |             |                             | 0.0007 J                         | --                              |                                 | 0.0027 J                        | --                              | 0.38                            | --                            | 0.56                            |
| BENZO(A)ANTHRACENE                      | --        |             |                             | 0.0039 J                         | --                              |                                 | 0.0026 J                        | --                              | 3.2                             | --                            | 4.9                             |
| BENZO(A)PYRENE                          | --        |             |                             | 0.0036 J                         | --                              |                                 | 0.0024 J                        | --                              | 1.9                             | --                            | 3.3                             |
| BENZO(B)FLUORANTHENE                    | --        |             |                             | 0.0056 J                         | --                              |                                 | 0.0035 J                        | --                              | 2 J                             | --                            | 5.2 J                           |
| BENZO(K)FLUORANTHENE                    | --        |             |                             | 0.0041 J                         | --                              |                                 | 0.0027 J                        | --                              | 1.7                             | --                            | 4.1                             |
| CHRYSENE                                | --        |             |                             | 0.0034                           | --                              |                                 | 0.0018 J                        | --                              | 2.8                             | --                            | 5 J                             |
| DIBENZ(A,H)ANTHRACENE                   | --        |             |                             | 0.0094 J                         | --                              |                                 | 0.006 J                         | --                              | 0.4                             | --                            | 0.42 J                          |
| FLUORANTHENE                            | --        |             |                             | 0.0034 J                         | --                              |                                 | 0.0013 J                        | --                              | 5.3                             | --                            | 3.1 J                           |
| FLUORENE                                | --        |             |                             | 0.00096 J                        | --                              |                                 | 0.00047 J                       | --                              | 0.15                            | --                            | 1.4                             |
| INDENO(1,2,3-C,D)PYRENE                 | --        |             |                             | 0.012 J                          | --                              |                                 | 0.007 J                         | --                              | 2.4                             | --                            | 3.3                             |
| NAPHTHALENE                             | --        |             |                             | 0.0029 U                         | --                              |                                 | 0.0019 U                        | --                              | 0.12 J                          | --                            | 1.7 J                           |
| PENTACHLOROPHENOL                       | --        |             |                             | 0.013 J                          | --                              |                                 | 0.011 U                         | --                              | 0.045                           | --                            | 0.053 J                         |
| PHENANTHRENE                            | --        |             |                             | 0.002 J                          | --                              |                                 | 0.003 J                         | --                              | 2.1                             | --                            | 2.1                             |
| PYRENE                                  | --        |             |                             | 0.0027                           | --                              |                                 | 0.0013                          | --                              | 4.6                             | --                            | 7.8                             |
| PAHs (total)                            | --        |             |                             | 0.065                            | --                              |                                 | 0.037                           | --                              | 28                              | --                            | 45                              |
| <b>Pesticides by MC PEST (mg/kg)</b>    |           |             |                             |                                  |                                 |                                 |                                 |                                 |                                 |                               |                                 |
| ALDRIN                                  | --        |             |                             | 0.00068 U                        | --                              |                                 | 0.003 U                         | --                              | 0.00066 U                       | --                            | 0.005 U                         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --        |             |                             | 0.0011 U                         | --                              |                                 | 0.0047 U                        | --                              | 0.001 U                         | --                            | 0.0079 U                        |
| ALPHA-CHLORDANE                         | --        |             |                             | 0.00053 U                        | --                              |                                 | 0.0023 U                        | --                              | 0.00052 U                       | --                            | 0.0039 U                        |
| ALPHA ENDOSULFAN                        | --        |             |                             | 0.0021 J                         | --                              |                                 | 0.11 J                          | --                              | 0.00061 U                       | --                            | 0.0047 U                        |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --        |             |                             | 0.0014 U                         | --                              |                                 | 0.0061 U                        | --                              | 0.0014 U                        | --                            | 0.01 U                          |
| BETA ENDOSULFAN                         | --        |             |                             | 0.04                             | --                              |                                 | 0.24 J                          | --                              | 0.0035 U                        | --                            | 0.62 J                          |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --        |             |                             | 0.12 J                           | --                              |                                 | 2.1                             | --                              | 0.062 J                         | --                            | 0.49 J                          |
| DIELDRIN                                | --        |             |                             | 0.039                            | --                              |                                 | 0.22                            | --                              | 0.017 J                         | --                            | 0.44                            |
| ENDOSULFAN SULFATE                      | --        |             |                             | 0.031                            | --                              |                                 | 0.28 J                          | --                              | 0.0012 U                        | --                            | 0.32 J                          |
| ENDRIN                                  | --        |             |                             | 0.0013 U                         | --                              |                                 | 0.0055 U                        | --                              | 0.0012 U                        | --                            | 0.0093 U                        |
| ENDRIN ALDEHYDE                         | --        |             |                             | 0.0039 U                         | --                              |                                 | 0.12 J                          | --                              | 0.0038 U                        | --                            | 0.029 U                         |
| ENDRIN KETONE                           | --        |             |                             | 0.011 J                          | --                              |                                 | 0.021 U                         | --                              | 0.0047 U                        | --                            | 0.036 U                         |
| GAMMA BHC (LINDANE)                     | --        |             |                             | 0.035 J                          | --                              |                                 | 0.59 J                          | --                              | 0.015 J                         | --                            | 0.15                            |
| GAMMA-CHLORDANE                         | --        |             |                             | 0.11                             | --                              |                                 | 0.96                            | --                              | 0.037                           | --                            | 3                               |
| HEPTACHLOR                              | --        |             |                             | 0.0013 U                         | --                              |                                 | 0.99 J                          | --                              | 0.0013 U                        | --                            | 0.19 J                          |
| HEPTACHLOR EPOXIDE                      | --        |             |                             | 0.0009 U                         | --                              |                                 | 0.0039 U                        | --                              | 0.00087 U                       | --                            | 0.0066 U                        |
| METHOXYCHLOR                            | --        |             |                             | 0.0039 U                         | --                              |                                 | 0.017 U                         | --                              | 0.0038 U                        | --                            | 0.27 J                          |
| P,P'-DDD                                | --        |             |                             | 0.0028 J                         | --                              |                                 | 0.012 J                         | --                              | 0.0027 U                        | --                            | 0.021 J                         |
| P,P'-DDE                                | --        |             |                             | 0.038 J                          | --                              |                                 | 0.2 J                           | --                              | 0.0016 U                        | --                            | 0.38 J                          |
| P,P'-DDT                                | --        |             |                             | 0.053 U                          | --                              |                                 | 0.55 U                          | --                              | 0.0046 U                        | --                            | 5.3 U                           |
| TOXAPHENE                               | --        |             |                             | 0.2 U                            | --                              |                                 | 0.87 U                          | --                              | 0.19 U                          | --                            | 1.5 U                           |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                  | Sample ID |  | Sample Date |          | Sample Depth Range (ft BGS) |  | R7-091-C   | R7-092-C   | R7-093-C   | R7-094-C   | R7-095-C   | R7-095-CR  | R7-096-C   |
|------------------------------------------|-----------|--|-------------|----------|-----------------------------|--|------------|------------|------------|------------|------------|------------|------------|
|                                          |           |  |             |          |                             |  | 11/24/2009 | 11/24/2009 | 11/24/2009 | 11/23/2009 | 11/23/2009 | 11/23/2009 | 11/23/2009 |
|                                          |           |  |             |          |                             |  | 0-1.4      | 0-1        | 0-0.9      | 0-1        | 0-1.3      | 0-1.3      | 0-1.3      |
| Metals by C200.7 (mg/kg)                 |           |  |             |          |                             |  |            |            |            |            |            |            |            |
| ALUMINUM                                 | 10000     |  | 6050        | 11000    |                             |  |            |            |            |            |            |            |            |
| ANTIMONY                                 | 7.9 J     |  | 6.6 J       | 2 J      |                             |  |            |            |            |            |            |            |            |
| ARSENIC                                  | 8.6 J+    |  | 3.8         | 5.9 J+   |                             |  |            |            |            |            |            |            |            |
| BARIUM                                   | 390       |  | 314         | 261      |                             |  |            |            |            |            |            |            |            |
| BERYLLIUM                                | 0.53 J+   |  | 0.47 J      | 0.61 J+  |                             |  |            |            |            |            |            |            |            |
| CADMIUM                                  | 6.6 J-    |  | 3.9         | 2.4      |                             |  |            |            |            |            |            |            |            |
| CALCIUM                                  | 16200     |  | 12200       | 19900    |                             |  |            |            |            |            |            |            |            |
| CHROMIUM                                 | 237       |  | 114         | 142      |                             |  |            |            |            |            |            |            |            |
| COBALT                                   | 15.7      |  | 6.6 J       | 10.9     |                             |  |            |            |            |            |            |            |            |
| COPPER                                   | 995       |  | 696         | 511      |                             |  |            |            |            |            |            |            |            |
| IRON                                     | 19500     |  | 12800       | 19800    |                             |  |            |            |            |            |            |            |            |
| LEAD                                     | 809 J+    |  | 402 J+      | 880 J+   |                             |  |            |            |            |            |            |            |            |
| MAGNESIUM                                | 6100      |  | 4330        | 8260     |                             |  |            |            |            |            |            |            |            |
| MANGANESE                                | 272       |  | 263         | 395      |                             |  |            |            |            |            |            |            |            |
| NICKEL                                   | 243       |  | 67.2        | 91.5     |                             |  |            |            |            |            |            |            |            |
| POTASSIUM                                | 1020      |  | 659 J       | 1150     |                             |  |            |            |            |            |            |            |            |
| SELENIUM                                 | 2.5 J     |  | 0.72 U      | 0.83 U   |                             |  |            |            |            |            |            |            |            |
| SILVER                                   | 0.97 J-   |  | 2.9         | 0.83 J-  |                             |  |            |            |            |            |            |            |            |
| SODIUM                                   | 1080 J    |  | 322 J       | 361 J    |                             |  |            |            |            |            |            |            |            |
| THALLIUM                                 | 0.64 U    |  | 0.47 U      | 0.54 U   |                             |  |            |            |            |            |            |            |            |
| VANADIUM                                 | 25        |  | 12.8        | 21.1     |                             |  |            |            |            |            |            |            |            |
| ZINC                                     | 2910      |  | 1680        | 950      |                             |  |            |            |            |            |            |            |            |
| Mercury by CV (mg/kg)                    |           |  |             |          |                             |  |            |            |            |            |            |            |            |
| MERCURY                                  | 0.92      |  | 12.6        | 0.98     |                             |  |            |            |            |            |            |            |            |
| PCBS by MC ARO (mg/kg)                   |           |  |             |          |                             |  |            |            |            |            |            |            |            |
| PCB-1016 (AROCOR 1016)                   | 0.019 U   |  | 0.023 U     | 0.019 U  |                             |  |            |            |            |            |            |            |            |
| PCB-1221 (AROCOR 1221)                   | 0.036 U   |  | 0.044 U     | 0.035 U  |                             |  |            |            |            |            |            |            |            |
| PCB-1232 (AROCOR 1232)                   | 0.013 U   |  | 0.016 U     | 0.013 U  |                             |  |            |            |            |            |            |            |            |
| PCB-1242 (AROCOR 1242)                   | 0.0083 U  |  | 0.01 U      | 0.0081 U |                             |  |            |            |            |            |            |            |            |
| PCB-1248 (AROCOR 1248)                   | 0.014 U   |  | 0.017 U     | 0.013 U  |                             |  |            |            |            |            |            |            |            |
| PCB-1254 (AROCOR 1254)                   | 3.4       |  | 11          | 2.5      |                             |  |            |            |            |            |            |            |            |
| PCB-1260 (AROCOR 1260)                   | 0.016 U   |  | 0.02 U      | 0.016 U  |                             |  |            |            |            |            |            |            |            |
| PCB-1262 (AROCOR 1262)                   | 0.015 U   |  | 0.019 U     | 0.015 U  |                             |  |            |            |            |            |            |            |            |
| PCB-1268 (AROCOR 1268)                   | 0.021 U   |  | 0.026 U     | 0.021 U  |                             |  |            |            |            |            |            |            |            |
| PCBs (total)                             | 3.4       |  | 11          | 2.5      |                             |  |            |            |            |            |            |            |            |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |  |             |          |                             |  |            |            |            |            |            |            |            |
| 2-METHYLNAPHTHALENE                      | --        |  | --          | --       |                             |  |            |            |            |            |            |            |            |
| ACENAPHTHENE                             | --        |  | --          | --       |                             |  |            |            |            |            |            |            |            |
| ACENAPHTHYL FNE                          | --        |  | --          | --       |                             |  |            |            |            |            |            |            |            |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID |    | Sample Date |    | Sample Depth Range (ft BGS) |    | R7-091-C   | R7-092-C   | R7-093-C   | R7-094-C   | R7-095-C   | R7-095-CR  | R7-096-C   |
|-----------------------------------------|-----------|----|-------------|----|-----------------------------|----|------------|------------|------------|------------|------------|------------|------------|
|                                         |           |    |             |    |                             |    | 11/24/2009 | 11/24/2009 | 11/24/2009 | 11/23/2009 | 11/23/2009 | 11/23/2009 | 11/23/2009 |
|                                         |           |    |             |    |                             |    | 0-1.4      | 0-1        | 0-0.9      | 0-1        | 0-1.3      | 0-1.3      | 0-1.3      |
| ANTHRACENE                              | --        | -- | --          | -- | --                          | -- | --         | --         | 4.2        | 0.48       | 1.1        | 1.7        | --         |
| BENZO(A)ANTHRACENE                      | --        | -- | --          | -- | --                          | -- | --         | --         | 18         | 3.4        | 6.5        | 9.3        | --         |
| BENZO(A)PYRENE                          | --        | -- | --          | -- | --                          | -- | --         | --         | 11         | 2.3        | 4.1        | 5.6        | --         |
| BENZO(B)FLUORANTHENE                    | --        | -- | --          | -- | --                          | -- | --         | --         | 13         | 2.5        | 4.1        | 5.3        | --         |
| BENZO(K)FLUORANTHENE                    | --        | -- | --          | -- | --                          | -- | --         | --         | 9.8        | 1.7        | 3          | 4          | --         |
| CHRYSENE                                | --        | -- | --          | -- | --                          | -- | --         | --         | 14         | 3.3 J      | 6.1 J      | 8.2 J      | --         |
| DIBENZ(A,H)ANTHRACENE                   | --        | -- | --          | -- | --                          | -- | --         | --         | 11         | 0.63       | 0.36       | 0.35       | --         |
| FLUORANTHENE                            | --        | -- | --          | -- | --                          | -- | --         | --         | 24 J       | 6 J        | 6.4        | 6.2        | --         |
| FLUORENE                                | --        | -- | --          | -- | --                          | -- | --         | --         | 2.2 J      | 0.28       | 0.51       | 0.43       | --         |
| INDENO(1,2,3-C,D)PYRENE                 | --        | -- | --          | -- | --                          | -- | --         | --         | 17         | 1.6        | 2.6        | 3.6        | --         |
| NAPHTHALENE                             | --        | -- | --          | -- | --                          | -- | --         | --         | 0.79 J     | 0.21 J     | 0.51 J     | 0.3 J      | --         |
| PENTACHLOROPHENOL                       | --        | -- | --          | -- | --                          | -- | --         | --         | 0.13       | 0.11       | 0.1        | 0.11       | --         |
| PHENANTHRENE                            | --        | -- | --          | -- | --                          | -- | --         | --         | 14         | 2.5        | 4.3        | 6.1        | --         |
| PYRENE                                  | --        | -- | --          | -- | --                          | -- | --         | --         | 23         | 5.2        | 6.3        | 6.5        | --         |
| PAHs (total)                            | --        | -- | --          | -- | --                          | -- | --         | --         | 170        | 31         | 47         | 59         | --         |
| <b>Pesticides by MC PEST (mg/kg)</b>    |           |    |             |    |                             |    |            |            |            |            |            |            |            |
| ALDRIN                                  | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0055 U   | 0.0079 U   | 0.0068 U   | 0.0007 U   | --         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0087 U   | 0.0012 U   | 0.0011 U   | 0.0011 U   | --         |
| ALPHA-CHLORDANE                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00043 U  | 0.00062 U  | 0.00053 U  | 0.00055 U  | --         |
| ALPHA ENDOSULFAN                        | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00051 U  | 0.01 J     | 0.012 J    | 0.024 J    | --         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0011 U   | 0.0016 U   | 0.0014 U   | 0.0015 U   | --         |
| BETA ENDOSULFAN                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.1 J      | 0.014      | 0.01 J     | 0.0038 U   | --         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --        | -- | --          | -- | --                          | -- | --         | --         | 0.4 J      | 0.067 J    | 0.05 J     | 0.046 J    | --         |
| DIELDRIN                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.081 J    | 0.023 J    | 0.03 J     | 0.12 J     | --         |
| ENDOSULFAN SULFATE                      | --        | -- | --          | -- | --                          | -- | --         | --         | 0.053 J    | 0.0015 U   | 0.0012 U   | 0.0013 U   | --         |
| ENDRIN                                  | --        | -- | --          | -- | --                          | -- | --         | --         | 0.001 U    | 0.015 J    | 0.026 J    | 0.05 J     | --         |
| ENDRIN ALDEHYDE                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0032 U   | 0.01 J     | 0.013 J    | 0.0041 U   | --         |
| ENDRIN KETONE                           | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0039 U   | 0.0056 U   | 0.021 J    | 0.005 U    | --         |
| GAMMA BHC (LINDANE)                     | --        | -- | --          | -- | --                          | -- | --         | --         | 0.12 J     | 0.02       | 0.027 J    | 0.023      | --         |
| GAMMA-CHLORDANE                         | --        | -- | --          | -- | --                          | -- | --         | --         | 0.23 J     | 0.032 J    | 0.045      | 0.12       | --         |
| HEPTACHLOR                              | --        | -- | --          | -- | --                          | -- | --         | --         | 0.25 J     | 0.012 J    | 0.016 J    | 0.013 J    | --         |
| HEPTACHLOR EPOXIDE                      | --        | -- | --          | -- | --                          | -- | --         | --         | 0.00073 U  | 0.001 U    | 0.028 J    | 0.00093 U  | --         |
| METHOXYCHLOR                            | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0032 U   | 0.0045 UJ  | 0.0039 UJ  | 0.0041 UJ  | --         |
| P,P'-DDD                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.0023 J   | 0.042 J    | 0.0028 J   | 0.23 J     | --         |
| P,P'-DDE                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.071 J    | 0.028 J    | 0.028 J    | 0.063      | --         |
| P,P'-DDT                                | --        | -- | --          | -- | --                          | -- | --         | --         | 0.093 U    | 0.077 U    | 0.077 U    | 0.53 U     | --         |
| TOXAPHENE                               | --        | -- | --          | -- | --                          | -- | --         | --         | 0.16 U     | 0.23 U     | 0.2 U      | 0.21 U     | --         |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                         | Sample ID |  | Sample Date |          | Sample Depth Range (ft BGS) |          | R7-097-C   | R7-098-C   | R7-099-C   | R7-100-C   | R7-101-C   | R7-102-C   | R7-103-C   | R7-104-C  |
|-------------------------------------------------|-----------|--|-------------|----------|-----------------------------|----------|------------|------------|------------|------------|------------|------------|------------|-----------|
|                                                 |           |  |             |          |                             |          | 11/23/2009 | 11/23/2009 | 11/23/2009 | 11/23/2009 | 11/30/2009 | 11/30/2009 | 11/30/2009 | 12/2/2009 |
|                                                 |           |  |             |          |                             |          | 0-0.9      | 0-1.9      | 0-1.3      | 0-1.2      | 0-0.5      | 0-1.5      | 0-2.3      | 0-1       |
| <b>Metals by C200.7 (mg/kg)</b>                 |           |  |             |          |                             |          |            |            |            |            |            |            |            |           |
| ALUMINUM                                        |           |  | 7210        | 7450     | 8800                        | 8550     | 8260 J     | 10100 J    | 9440 J     | 7540       |            |            |            |           |
| ANTIMONY                                        |           |  | 4.1 J       | 5.2 J    | 1.9 U                       | 4.3 J    | 1.4 U      | 3.2 J      | 1.3 UR     | 2 J        |            |            |            |           |
| ARSENIC                                         |           |  | 6           | 5.6      | 5.5                         | 6.4      | 7.1 J+     | 10.4 J+    | 16.2       | 7.9        |            |            |            |           |
| BARIUM                                          |           |  | 230         | 264      | 239                         | 238      | 281 J      | 321 J      | 305 J      | 180        |            |            |            |           |
| BERYLLIUM                                       |           |  | 0.41 J+     | 0.47 J+  | 0.59 J                      | 0.64 J+  | 0.54 J+    | 0.61 J+    | 0.5 J+     | 0.53 J+    |            |            |            |           |
| CADMIUM                                         |           |  | 2.3         | 1.7      | 2.4                         | 1.5      | 2.2 J-     | 2 J-       | 5.2 J-     | 0.87 J-    |            |            |            |           |
| CALCIUM                                         |           |  | 16200       | 17500    | 23000                       | 13500    | 22700 J    | 16300 J    | 19200 J    | 17300      |            |            |            |           |
| CHROMIUM                                        |           |  | 141         | 130      | 161                         | 105      | 265 J      | 136 J      | 414 J      | 136        |            |            |            |           |
| COBALT                                          |           |  | 9.2         | 8.4      | 10.3 J                      | 9.2 J    | 10.2       | 10.3       | 13.9       | 9.3        |            |            |            |           |
| COPPER                                          |           |  | 567         | 520      | 567                         | 385      | 1620 J     | 608 J      | 1560 J     | 576        |            |            |            |           |
| IRON                                            |           |  | 15600       | 17100    | 20000                       | 19000    | 20800 J    | 22800 J    | 20200 J    | 17600      |            |            |            |           |
| LEAD                                            |           |  | 590         | 488      | 628                         | 486      | 2070 J     | 813 J      | 2940 J     | 849        |            |            |            |           |
| MAGNESIUM                                       |           |  | 6860        | 7050     | 9340                        | 6440     | 9170 J     | 8730 J     | 8420 J     | 6950       |            |            |            |           |
| MANGANESE                                       |           |  | 232         | 307      | 300                         | 289      | 389 J      | 260 J      | 323 J      | 298 J      |            |            |            |           |
| NICKEL                                          |           |  | 85.5        | 74.9     | 82.2                        | 65       | 97.9       | 60         | 164        | 74.7       |            |            |            |           |
| POTASSIUM                                       |           |  | 612 J       | 651 J    | 933 J                       | 854 J    | 840 J      | 1060       | 705 J      | 16.5 U     |            |            |            |           |
| SELENIUM                                        |           |  | 0.72 U      | 0.81 U   | 1.2 U                       | 0.93 U   | 2.8 J      | 2.9 J      | 4.1 J      | 1.9 J+     |            |            |            |           |
| SILVER                                          |           |  | 3.1 J-      | 1.5 J-   | 1.6 J-                      | 0.65 J-  | 9.2 J-     | 1.6 J-     | 6.2 J-     | 0.91 J-    |            |            |            |           |
| SODIUM                                          |           |  | 238 J       | 217 J    | 306 J                       | 257 J    | 3.8 UJ     | 4 UJ       | 3.4 UJ     | 372 J      |            |            |            |           |
| THALLIUM                                        |           |  | 0.47 U      | 0.53 U   | 0.77 U                      | 0.63 U   | 0.57 U     | 0.61 U     | 0.51 U     | 0.54 U     |            |            |            |           |
| VANADIUM                                        |           |  | 15          | 14.2     | 19.3                        | 17       | 25.8       | 21.4       | 45.5       | 19         |            |            |            |           |
| ZINC                                            |           |  | 856         | 791      | 1010                        | 763      | 942 J      | 1390 J     | 2220 J     | 907        |            |            |            |           |
| <b>Mercury by CV (mg/kg)</b>                    |           |  |             |          |                             |          |            |            |            |            |            |            |            |           |
| MERCURY                                         |           |  | 0.56        | 0.98     | 0.69                        | 1.8      | 0.96       | 3          | 3.6        | 0.93       |            |            |            |           |
| <b>PCBS by MC ARO (mg/kg)</b>                   |           |  |             |          |                             |          |            |            |            |            |            |            |            |           |
| PCB-1016 (AROCOR 1016)                          |           |  | 0.012 U     | 0.016 U  | 0.019 U                     | 0.014 U  | 0.036 U    | 0.2 U      | 0.17 UJ    | 0.19 U     |            |            |            |           |
| PCB-1221 (AROCOR 1221)                          |           |  | 0.023 U     | 0.031 U  | 0.036 U                     | 0.026 U  | 0.068 U    | 0.37 U     | 0.32 UJ    | 0.36 U     |            |            |            |           |
| PCB-1232 (AROCOR 1232)                          |           |  | 0.0085 U    | 0.011 U  | 0.013 U                     | 0.0096 U | 0.025 U    | 0.13 U     | 0.12 UJ    | 0.13 U     |            |            |            |           |
| PCB-1242 (AROCOR 1242)                          |           |  | 0.0054 U    | 0.0071 U | 0.0084 U                    | 0.0061 U | 0.016 U    | 0.085 U    | 0.074 UJ   | 0.084 U    |            |            |            |           |
| PCB-1248 (AROCOR 1248)                          |           |  | 0.0089 U    | 0.012 U  | 0.014 U                     | 0.01 U   | 0.026 U    | 0.14 U     | 0.12 UJ    | 0.14 U     |            |            |            |           |
| PCB-1254 (AROCOR 1254)                          |           |  | 2.2 J       | 1.6 J    | 0.65 J                      | 0.5 J    | 1.1        | 1.9 J      | 1.5 J      | 9.8 J      |            |            |            |           |
| PCB-1260 (AROCOR 1260)                          |           |  | 0.01 U      | 0.014 U  | 0.016 U                     | 0.012 U  | 0.031 U    | 0.17 U     | 0.14 UJ    | 0.16 U     |            |            |            |           |
| PCB-1262 (AROCOR 1262)                          |           |  | 0.01 U      | 0.013 U  | 0.016 U                     | 0.011 U  | 0.029 U    | 0.16 U     | 0.14 UJ    | 0.15 U     |            |            |            |           |
| PCB-1268 (AROCOR 1268)                          |           |  | 0.014 U     | 0.018 U  | 0.022 U                     | 0.016 U  | 0.041 U    | 0.22 U     | 0.19 UJ    | 0.22 U     |            |            |            |           |
| PCBs (total)                                    |           |  | 2.2         | 1.6      | 0.65                        | 0.5      | 1.1        | 1.9        | 1.5        | 9.8        |            |            |            |           |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |  |             |          |                             |          |            |            |            |            |            |            |            |           |
| 2-METHYLNAPHTHALENE                             |           |  | --          | --       | 0.15                        | 0.19     | --         | --         | --         | 0.48 J     |            |            |            |           |
| ACENAPHTHENE                                    |           |  | --          | --       | 0.25                        | 0.2      | --         | --         | --         | 0.98 J     |            |            |            |           |
| ACENAPHTHYLENE                                  |           |  | --          | --       | 0.21                        | 0.36 J   | --         | --         | --         | 1.9 J      |            |            |            |           |



Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID<br>Sample Date<br>Sample Depth Range (ft BGS) | R7-097-C<br>11/23/2009<br>0-0.9 | R7-098-C<br>11/23/2009<br>0-1.9 | R7-099-C<br>11/23/2009<br>0-1.3 | R7-100-C<br>11/23/2009<br>0-1.2 | R7-101-C<br>11/30/2009<br>0-0.5 | R7-102-C<br>11/30/2009<br>0-1.5 | R7-103-C<br>11/30/2009<br>0-2.3 | R7-104-C<br>12/2/2009<br>0-1 |
|-----------------------------------------|---------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|------------------------------|
| ANTHRACENE                              |                                                         | --                              | --                              | 0.72                            | 1.6                             | --                              | --                              | --                              | 1.6                          |
| BENZO(A)ANTHRACENE                      |                                                         | --                              | --                              | 4.3                             | 6.7 U                           | --                              | --                              | --                              | 7.5                          |
| BENZO(A)PYRENE                          |                                                         | --                              | --                              | 2.7                             | 3.7 J                           | --                              | --                              | --                              | 6.7                          |
| BENZO(B)FLUORANTHENE                    |                                                         | --                              | --                              | 2.4                             | 4.9 J                           | --                              | --                              | --                              | 6.6                          |
| BENZO(K)FLUORANTHENE                    |                                                         | --                              | --                              | 1.7                             | 3.4 J                           | --                              | --                              | --                              | 4.8                          |
| CHRYSENE                                |                                                         | --                              | --                              | 3.8 J                           | 6 J                             | --                              | --                              | --                              | 7.7 J                        |
| DIBENZ(A,H)ANTHRACENE                   |                                                         | --                              | --                              | 0.44                            | 0.4                             | --                              | --                              | --                              | 2.2                          |
| FLUORANTHENE                            |                                                         | --                              | --                              | 6.1 J                           | 4.3                             | --                              | --                              | --                              | 10 J                         |
| FLUORENE                                |                                                         | --                              | --                              | 0.35                            | 0.34 J                          | --                              | --                              | --                              | 1.2                          |
| INDENO(1,2,3-C,D)PYRENE                 |                                                         | --                              | --                              | 1.9                             | 4.8                             | --                              | --                              | --                              | 5.7 J                        |
| NAPHTHALENE                             |                                                         | --                              | --                              | 0.18 J                          | 0.18 J                          | --                              | --                              | --                              | 0.38 J                       |
| PENTACHLOROPHENOL                       |                                                         | --                              | --                              | 0.079                           | 0.069 J                         | --                              | --                              | --                              | 0.021                        |
| PHENANTHRENE                            |                                                         | --                              | --                              | 2.9                             | 4.7 J                           | --                              | --                              | --                              | 5                            |
| PYRENE                                  |                                                         | --                              | --                              | 6.1                             | 4.6                             | --                              | --                              | --                              | 12                           |
| PAHs (total)                            |                                                         | --                              | --                              | 34                              | 43                              | --                              | --                              | --                              | 79                           |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                                                         |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                              |
| ALDRIN                                  |                                                         | --                              | --                              | 0.0068 U                        | 0.0049 U                        | --                              | --                              | --                              | 0.0014 U                     |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                                                         | --                              | --                              | 0.0011 U                        | 0.0042 J                        | --                              | --                              | --                              | 0.0021 U                     |
| ALPHA-CHLORDANE                         |                                                         | --                              | --                              | 0.00053 U                       | 0.00038 U                       | --                              | --                              | --                              | 0.0011 U                     |
| ALPHA ENDOSULFAN                        |                                                         | --                              | --                              | 0.00063 U                       | 0.00046 U                       | --                              | --                              | --                              | 0.0013 U                     |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                                                         | --                              | --                              | 0.0014 U                        | 0.001 U                         | --                              | --                              | --                              | 0.0028 U                     |
| BETA ENDOSULFAN                         |                                                         | --                              | --                              | 0.0036 U                        | 0.0075                          | --                              | --                              | --                              | 0.28 J                       |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                                                         | --                              | --                              | 0.064 J                         | 0.027 J                         | --                              | --                              | --                              | 0.11 J                       |
| DIELDRIN                                |                                                         | --                              | --                              | 0.019 J                         | 0.018                           | --                              | --                              | --                              | 0.19 J                       |
| ENDOSULFAN SULFATE                      |                                                         | --                              | --                              | 0.0013 U                        | 0.00091 U                       | --                              | --                              | --                              | 0.27 J                       |
| ENDRIN                                  |                                                         | --                              | --                              | 0.031 J                         | 0.0087                          | --                              | --                              | --                              | 0.0025 U                     |
| ENDRIN ALDEHYDE                         |                                                         | --                              | --                              | 0.0039 U                        | 0.0028 U                        | --                              | --                              | --                              | 0.15                         |
| ENDRIN KETONE                           |                                                         | --                              | --                              | 0.0092 J                        | 0.015 J                         | --                              | --                              | --                              | 0.15 J                       |
| GAMMA BHC (LINDANE)                     |                                                         | --                              | --                              | 0.048                           | 0.018                           | --                              | --                              | --                              | 0.045 J                      |
| GAMMA-CHLORDANE                         |                                                         | --                              | --                              | 0.037                           | 0.023                           | --                              | --                              | --                              | 0.39 J                       |
| HEPTACHLOR                              |                                                         | --                              | --                              | 0.022 J                         | 0.0079 J                        | --                              | --                              | --                              | 0.072 J                      |
| HEPTACHLOR EPOXIDE                      |                                                         | --                              | --                              | 0.0009 U                        | 0.00065 U                       | --                              | --                              | --                              | 0.0018 U                     |
| METHOXYCHLOR                            |                                                         | --                              | --                              | 0.071 J                         | 0.0028 UJ                       | --                              | --                              | --                              | 0.0078 U                     |
| P,P'-DDD                                |                                                         | --                              | --                              | 0.018 J                         | 0.002 J                         | --                              | --                              | --                              | 0.0055 J                     |
| P,P'-DDE                                |                                                         | --                              | --                              | 0.026 J                         | 0.015                           | --                              | --                              | --                              | 0.19 J                       |
| P,P'-DDT                                |                                                         | --                              | --                              | 0.048 U                         | 0.046 U                         | --                              | --                              | --                              | 0.82 U                       |
| TOXAPHENE                               |                                                         | --                              | --                              | 0.2 U                           | 0.14 U                          | --                              | --                              | --                              | 0.39 U                       |

Key at the end of table

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                         | Sample ID | Sample Date | Sample Depth Range (ft BGS) | R7-105-C<br>11/30/2009 | R7-106-C<br>11/30/2009 | R7-120-T-Z1<br>11/24/2009 | R7-120-T-Z2<br>11/24/2009 | R7-121-T-Z1<br>12/2/2009 | R7-122-T-Z1<br>11/25/2009 | R7-122-T-Z2<br>11/25/2009 | R7-123-T-Z1<br>11/23/2009 |
|-------------------------------------------------|-----------|-------------|-----------------------------|------------------------|------------------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|---------------------------|
|                                                 |           |             |                             | 0-1.4                  | 0-0.5                  | 0-0.5                     | 0.5-2.1                   | 0-0.5                    | 0-0.5                     | 0.5-1                     | 0-0.5                     |
| <b>Metals by C200.7 (mg/kg)</b>                 |           |             |                             |                        |                        |                           |                           |                          |                           |                           |                           |
| ALUMINUM                                        | 10000 J   |             |                             | 10000 J                | 8680 J                 | 11700                     | 8270                      | 6950 J                   | 6010                      | 4900                      | 9980                      |
| ANTIMONY                                        | 1.4 U     |             |                             | 1.4 U                  | 3.1 J                  | 1.2 U                     | 0.23 U                    | 1.4 U                    | 1.2 U                     | 1 U                       | 1.5 U                     |
| ARSENIC                                         | 16.8      |             |                             | 16.8                   | 5.3 J+                 | 5 J+                      | 5.1 J+                    | 3.6                      | 1.7                       | 2.4                       | 5.4                       |
| BARIUM                                          | 222 J     |             |                             | 222 J                  | 114 J                  | 123                       | 118                       | 110 J                    | 66.6                      | 35                        | 147                       |
| BERYLLIUM                                       | 0.53 J+   |             |                             | 0.53 J+                | 1 J+                   | 0.73 J+                   | 0.029 U                   | 0.55 J                   | 0.37 J                    | 0.38 J                    | 0.76 J+                   |
| CADMIUM                                         | 5.2 J-    |             |                             | 5.2 J-                 | 0.35 J-                | 0.45 J-                   | 0.029 U                   | 0.089 U                  | 0.18 J                    | 0.14 J                    | 0.72 J-                   |
| CALCIUM                                         | 17300 J   |             |                             | 17300 J                | 20200 J                | 5790                      | 4600                      | 3650 J                   | 4300                      | 3080                      | 10500                     |
| CHROMIUM                                        | 443 J     |             |                             | 443 J                  | 60.9 J                 | 22.6                      | 16.8                      | 31 J                     | 9.9                       | 7.8                       | 39                        |
| COBALT                                          | 16.1      |             |                             | 16.1                   | 12.3                   | 9.9                       | 11.1                      | 7.5 J                    | 5 J                       | 5.1 J                     | 10.8                      |
| COPPER                                          | 966 J     |             |                             | 966 J                  | 462 J                  | 24.8                      | 16.2                      | 56.5 J                   | 14.3                      | 8.6                       | 68.5                      |
| IRON                                            | 21100 J   |             |                             | 21100 J                | 17500 J                | 21900                     | 18700                     | 16200 J                  | 11100                     | 11600                     | 24000                     |
| LEAD                                            | 1630 J    |             |                             | 1630 J                 | 311 J                  | 35.7 J+                   | 25.5 J+                   | 63.3 J                   | 15.3 J+                   | 4.6 J+                    | 94.4                      |
| MAGNESIUM                                       | 8580 J    |             |                             | 8580 J                 | 8170 J                 | 4410                      | 4070                      | 2360 J                   | 2230                      | 1810                      | 4370                      |
| MANGANESE                                       | 267 J     |             |                             | 267 J                  | 329 J                  | 274                       | 310                       | 441 J                    | 200                       | 184                       | 588                       |
| NICKEL                                          | 165       |             |                             | 165                    | 72.2                   | 23.9                      | 21.7                      | 23.6                     | 10.2                      | 8                         | 36.9                      |
| POTASSIUM                                       | 793 J     |             |                             | 793 J                  | 539 J                  | 1370                      | 682 J                     | 565 J                    | 640 J                     | 557 J                     | 1190                      |
| SELENIUM                                        | 3.8 J     |             |                             | 3.8 J                  | 1.3 J                  | 0.75 U                    | 1.5 J+                    | 1.5 J                    | 0.75 U                    | 0.64 U                    | 0.93 U                    |
| SILVER                                          | 4.6 J-    |             |                             | 4.6 J-                 | 7.5                    | 0.14 UJ                   | 0.073 UR                  | 0.16 U                   | 0.14 U                    | 0.12 U                    | 0.17 UJ                   |
| SODIUM                                          | 3.6 UJ    |             |                             | 3.6 UJ                 | 2.6 UJ                 | 268 J                     | 27.8 U                    | 3.7 UJ                   | 252 J                     | 269 J                     | 270 J                     |
| THALLIUM                                        | 0.55 U    |             |                             | 0.55 U                 | 0.39 U                 | 0.49 U                    | 0.17 U                    | 0.57 U                   | 0.49 U                    | 0.42 U                    | 0.61 U                    |
| VANADIUM                                        | 48.5      |             |                             | 48.5                   | 13.9                   | 23.2                      | 18.2                      | 16.3                     | 12.9                      | 13.5                      | 21.9                      |
| ZINC                                            | 2460 J    |             |                             | 2460 J                 | 402 J                  | 134                       | 109                       | 176 J                    | 55.7                      | 39.4                      | 317                       |
| <b>Mercury by CV (mg/kg)</b>                    |           |             |                             |                        |                        |                           |                           |                          |                           |                           |                           |
| MERCURY                                         | 1.2       |             |                             | 1.2                    | 0.67                   | 0.068 U                   | 0.26                      | 0.1 J                    | 0.05 U                    | 0.051 U                   | 0.17 J                    |
| <b>PCBS by MC ARO (mg/kg)</b>                   |           |             |                             |                        |                        |                           |                           |                          |                           |                           |                           |
| PCB-1016 (AROCOR 1016)                          | 0.15 U    |             |                             | 0.15 U                 | 0.014 U                | 0.016 U                   | 0.012 U                   | 0.013 UJ                 | 0.012 U                   | 0.011 U                   | 0.013 U                   |
| PCB-1221 (AROCOR 1221)                          | 0.29 U    |             |                             | 0.29 U                 | 0.026 U                | 0.03 U                    | 0.022 U                   | 0.025 U                  | 0.023 U                   | 0.021 U                   | 0.025 U                   |
| PCB-1232 (AROCOR 1232)                          | 0.11 U    |             |                             | 0.11 U                 | 0.0096 U               | 0.011 U                   | 0.0079 U                  | 0.0092 U                 | 0.0084 U                  | 0.0078 U                  | 0.0092 U                  |
| PCB-1242 (AROCOR 1242)                          | 0.066 U   |             |                             | 0.066 U                | 0.0061 U               | 0.0069 U                  | 0.005 U                   | 0.0058 U                 | 0.0053 U                  | 0.0049 U                  | 0.0058 U                  |
| PCB-1248 (AROCOR 1248)                          | 0.11 U    |             |                             | 0.11 U                 | 0.01 U                 | 0.011 U                   | 0.0083 U                  | 0.0096 U                 | 0.0088 U                  | 0.0081 U                  | 0.0096 U                  |
| PCB-1254 (AROCOR 1254)                          | 4.8 J     |             |                             | 4.8 J                  | 0.43 J                 | 0.0092 U                  | 0.0067 U                  | 0.39                     | 0.0071 U                  | 0.0066 U                  | 0.0077 U                  |
| PCB-1260 (AROCOR 1260)                          | 0.13 U    |             |                             | 0.13 U                 | 0.012 U                | 0.013 U                   | 0.0097 U                  | 0.011 UJ                 | 0.01 U                    | 0.0096 U                  | 0.011 U                   |
| PCB-1262 (AROCOR 1262)                          | 0.12 U    |             |                             | 0.12 U                 | 0.011 U                | 0.013 U                   | 0.0093 U                  | 0.011 U                  | 0.0099 U                  | 0.0091 U                  | 0.011 U                   |
| PCB-1268 (AROCOR 1268)                          | 0.17 U    |             |                             | 0.17 U                 | 0.016 U                | 0.018 U                   | 0.013 U                   | 0.015 U                  | 0.014 U                   | 0.013 U                   | 0.015 U                   |
| PCBs (total)                                    | 4.8       |             |                             | 4.8                    | 0.43                   | 0.011 U                   | 0.011 U                   | 0.39                     | 0.011 U                   | 0.011 U                   | 0.011 U                   |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |           |             |                             |                        |                        |                           |                           |                          |                           |                           |                           |
| 2-METHYLNAPHTHALENE                             | 0.11      |             |                             | 0.11                   | 0.0018 U               | 0.013 J                   | 0.016 J                   | 0.012 J                  | 0.005 J                   | 0.011 J                   | 0.019                     |
| ACENAPHTHENE                                    | 0.11      |             |                             | 0.11                   | 0.0018 J               | 0.004                     | 0.0048                    | 0.008                    | 0.0019 J                  | 0.0012 J                  | 0.029                     |
| ACENAPHTHYLENE                                  | 0.14      |             |                             | 0.14                   | 0.004 J                | 0.0092                    | 0.0081                    | 0.014                    | 0.0016 J                  | 0.0012 U                  | 0.016                     |

Table 4-6a

Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID  |       | Sample Date |           | Sample Depth Range (ft BGS) |            | R7-105-C   | R7-106-C  | R7-120-T-Z1 | R7-120-T-Z2 | R7-121-T-Z1 | R7-122-T-Z1 | R7-122-T-Z2 | R7-123-T-Z1 |
|-----------------------------------------|------------|-------|-------------|-----------|-----------------------------|------------|------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                         | 11/30/2009 | 0-1.4 | 11/30/2009  | 0-0.5     | 11/24/2009                  | 0-0.5      | 11/30/2009 | 0-0.5     | 11/24/2009  | 0.5-2.1     | 12/2/2009   | 0-0.5       | 11/25/2009  | 0-0.5       |
| ANTHRACENE                              | 0.28       |       | 0.0022 J    | 0.011     | 0.017 J                     | 0.023      | 0.0031     | 0.0019 J  | 0.031       | 0.0019 J    | 0.0031      | 0.0019 J    | 0.0031      | 0.031       |
| BENZO(A)ANTHRACENE                      | 3.4        |       | 0.005 U     | 0.058     | 0.11 J                      | 0.16       | 0.018      | 0.0045 U  | 0.18        | 0.0045 U    | 0.018       | 0.0045 U    | 0.0045 U    | 0.18        |
| BENZO(A)PYRENE                          | 2.1        |       | 0.0036 U    | 0.047 J   | 0.071 J                     | 0.13       | 0.024      | 0.003 U   | 0.1         | 0.003 U     | 0.024       | 0.003 U     | 0.003 U     | 0.1         |
| BENZO(B)FLUORANTHENE                    | 2.3 J      |       | 0.0051 U    | 0.084     | 0.088 J                     | 0.11       | 0.018      | 0.0042 U  | 0.12        | 0.0042 U    | 0.018       | 0.0042 U    | 0.0042 U    | 0.12        |
| BENZO(K)FLUORANTHENE                    | 2.2        |       | 0.0041 J    | 0.046     | 0.074 J                     | 0.11       | 0.012      | 0.0035 J  | 0.082       | 0.0035 J    | 0.012       | 0.0035 J    | 0.0035 J    | 0.082       |
| CHRYSENE                                | 3.3        |       | 0.0039 J    | 0.051     | 0.088                       | 0.16       | 0.019 U    | 0.0042 U  | 0.18 J      | 0.0042 U    | 0.019 U     | 0.0042 U    | 0.0042 U    | 0.18 J      |
| DIBENZ(A,H)ANTHRACENE                   | 0.55       |       | 0.0059      | 0.022 J   | 0.035 J                     | 0.029      | 0.0031     | 0.0029    | 0.015       | 0.0029      | 0.0031      | 0.0029      | 0.0029      | 0.015       |
| FLUORANTHENE                            | 5.6        |       | 0.0065 U    | 0.13 J    | 0.16                        | 0.22       | 0.031 J    | 0.0057 J  | 0.35        | 0.0057 J    | 0.031 J     | 0.0057 J    | 0.0057 J    | 0.35        |
| FLUORENE                                | 0.17       |       | 0.002       | 0.0047 J  | 0.014 J                     | 0.014      | 0.0024     | 0.0015 J  | 0.067       | 0.0015 J    | 0.0024      | 0.0015 J    | 0.0015 J    | 0.067       |
| INDENO(1,2,3-C,D)PYRENE                 | 3.1        |       | 0.0092 J    | 0.096     | 0.089                       | 0.093      | 0.012      | 0.0032    | 0.079       | 0.0032      | 0.012       | 0.0032      | 0.0032      | 0.079       |
| NAPHTHALENE                             | 0.11 J     |       | 0.0022 UJ   | 0.017 U   | 0.019 J                     | 0.014 J    | 0.0062 UR  | 0.0084 J  | 0.016       | 0.0084 J    | 0.0062 UR   | 0.0084 J    | 0.0084 J    | 0.016       |
| PENTACHLOROPHENOL                       | 0.13       |       | 0.0089 J    | 0.01 J    | 0.0031                      | 0.0092     | 0.0079     | 0.0014    | 0.012       | 0.0079      | 0.0079      | 0.0014      | 0.0014      | 0.012       |
| PHENANTHRENE                            | 2.7        |       | 0.0035 J    | 0.035 J   | 0.041 J                     | 0.097 J    | 0.016 J    | 0.0071    | 0.25        | 0.016 J     | 0.016 J     | 0.0071      | 0.0071      | 0.25        |
| PYRENE                                  | 5.3        |       | 0.0056      | 0.12      | 0.17                        | 0.25       | 0.031      | 0.0087    | 0.28        | 0.0087      | 0.031       | 0.0087      | 0.0087      | 0.28        |
| PAHs (total)                            | 32         |       | 0.054       | 0.75      | 1                           | 1.5        | 0.2        | 0.046     | 1.8         | 0.046       | 0.2         | 0.046       | 0.046       | 1.8         |
| <b>Pesticides by MC PEST (mg/kg)</b>    |            |       |             |           |                             |            |            |           |             |             |             |             |             |             |
| ALDRIN                                  | 0.0054 U   |       | 0.0049 U    | 0.0056 U  | 0.004 U                     | 0.0047 U   | 0.015 J    | 0.0004 U  | 0.00047 U   | 0.0004 U    | 0.015 J     | 0.0004 U    | 0.0004 U    | 0.00047 U   |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | 0.0084 U   |       | 0.0077 U    | 0.0088 U  | 0.0084 U                    | 0.0074 U   | 0.00068 U  | 0.00063 U | 0.00074 U   | 0.00068 U   | 0.00068 U   | 0.00063 U   | 0.00063 U   | 0.00074 U   |
| ALPHA-CHLORDANE                         | 0.0042 U   |       | 0.0038 U    | 0.0044 U  | 0.0032 U                    | 0.0037 U   | 0.00034 U  | 0.00031 U | 0.00037 U   | 0.00034 U   | 0.00034 U   | 0.00031 U   | 0.00031 U   | 0.00037 U   |
| ALPHA ENDOSULFAN                        | 0.051 J    |       | 0.0032 J    | 0.0052 U  | 0.00037 U                   | 0.00043 U  | 0.0004 U   | 0.00037 U | 0.00043 U   | 0.00037 U   | 0.0004 U    | 0.00037 U   | 0.00037 U   | 0.00043 U   |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | 0.0011 U   |       | 0.001 U     | 0.0012 U  | 0.00084 U                   | 0.00097 U  | 0.00089 U  | 0.00082 U | 0.00097 U   | 0.00084 U   | 0.00089 U   | 0.00082 U   | 0.00082 U   | 0.00097 U   |
| BETA ENDOSULFAN                         | 0.065 J    |       | 0.0099 J    | 0.003 U   | 0.0022 U                    | 0.04 J     | 0.0023 U   | 0.0021 U  | 0.0025 U    | 0.0022 U    | 0.0023 U    | 0.0021 U    | 0.0021 U    | 0.0025 U    |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | 0.2 J      |       | 0.021 J     | 0.001 U   | 0.00075 U                   | 0.011 J    | 0.0008 U   | 0.00074 U | 0.00087 U   | 0.00075 U   | 0.011 J     | 0.0008 U    | 0.00074 U   | 0.00087 U   |
| DIELDRIN                                | 0.12       |       | 0.011       | 0.001 U   | 0.00075 U                   | 0.023 J    | 0.028 J    | 0.00074 U | 0.00087 U   | 0.00075 U   | 0.023 J     | 0.00074 U   | 0.00074 U   | 0.00087 U   |
| ENDOSULFAN SULFATE                      | 0.064 J    |       | 0.0089 J    | 0.001 U   | 0.00075 U                   | 0.02 J     | 0.0008 U   | 0.00074 U | 0.00087 U   | 0.00075 U   | 0.02 J      | 0.0008 U    | 0.00074 U   | 0.00087 U   |
| ENDRIN                                  | 0.0009 U   |       | 0.00091 U   | 0.001 U   | 0.00075 U                   | 0.00087 UR | 0.033 J    | 0.00074 U | 0.00087 U   | 0.00075 U   | 0.00087 UR  | 0.00074 U   | 0.00074 U   | 0.00087 U   |
| ENDRIN ALDEHYDE                         | 0.0031 U   |       | 0.0028 U    | 0.0032 U  | 0.0023 U                    | 0.012 J    | 0.0025 U   | 0.0023 U  | 0.0027 U    | 0.0023 U    | 0.012 J     | 0.0025 U    | 0.0023 U    | 0.0027 U    |
| ENDRIN KETONE                           | 0.0038 U   |       | 0.0035 U    | 0.004 U   | 0.0029 U                    | 0.014 J    | 0.0031 U   | 0.0028 U  | 0.0033 U    | 0.0029 U    | 0.014 J     | 0.0031 U    | 0.0028 U    | 0.0033 U    |
| GAMMA BHC (LINDANE)                     | 0.029 J    |       | 0.007 J     | 0.00083 U | 0.0006 U                    | 0.0007 U   | 0.0014 J   | 0.00059 U | 0.0007 U    | 0.0006 U    | 0.0007 U    | 0.00059 U   | 0.00059 U   | 0.0007 U    |
| GAMMA-CHLORDANE                         | 0.25 J     |       | 0.023       | 0.00066 U | 0.00047 U                   | 0.031 J    | 0.00051 U  | 0.00047 U | 0.00055 U   | 0.00047 U   | 0.031 J     | 0.00051 U   | 0.00047 U   | 0.00055 U   |
| HEPTACHLOR                              | 0.16 J     |       | 0.00093 U   | 0.0011 U  | 0.00077 U                   | 0.00089 U  | 0.018 J    | 0.00076 U | 0.00089 U   | 0.00077 U   | 0.00089 U   | 0.00076 U   | 0.00076 U   | 0.00089 U   |
| HEPTACHLOR EPOXIDE                      | 0.00071 U  |       | 0.00065 U   | 0.00074 U | 0.00053 U                   | 0.00062 U  | 0.00057 U  | 0.00053 U | 0.00062 U   | 0.00053 U   | 0.00062 U   | 0.00053 U   | 0.00053 U   | 0.00062 U   |
| METHOXYCHLOR                            | 0.0031 U   |       | 0.0028 U    | 0.0032 U  | 0.0023 U                    | 0.0027 U   | 0.0025 U   | 0.0023 U  | 0.0027 UJ   | 0.0023 U    | 0.0027 U    | 0.0023 U    | 0.0023 U    | 0.0027 UJ   |
| P,P'-DDD                                | 0.036 J    |       | 0.002 J     | 0.004 J   | 0.0017 U                    | 0.0019 J   | 0.0018 U   | 0.0016 U  | 0.0019 U    | 0.0017 U    | 0.0019 J    | 0.0016 U    | 0.0016 U    | 0.0019 U    |
| P,P'-DDE                                | 0.12 J     |       | 0.0085 J    | 0.011 U   | 0.001 U                     | 0.034 J    | 0.0011 J   | 0.00098 U | 0.0024 U    | 0.001 U     | 0.034 J     | 0.0011 J    | 0.00098 U   | 0.0024 U    |
| P,P'-DDT                                | 0.1 U      |       | 0.017 U     | 0.0039 U  | 0.0028 U                    | 0.098 U    | 0.029 U    | 0.0027 U  | 0.0032 U    | 0.0028 U    | 0.098 U     | 0.029 U     | 0.0027 U    | 0.0032 U    |
| TOXAPHENE                               | 0.16 U     |       | 0.14 U      | 0.16 U    | 0.12 U                      | 0.14 U     | 0.13 U     | 0.12 U    | 0.14 U      | 0.12 U      | 0.14 U      | 0.12 U      | 0.12 U      | 0.14 U      |

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Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                   | Sample ID  |          | Sample Date |          | Sample Depth Range (ft BGS) |         | R7-123-T-Z2 | R7-124-T-Z1 | R7-125-T-Z1 | R7-125-T-Z2 | R7-172-C-Z1a | R7-172-C-Comp | R7-173-C-Z1a | R7-173-C-Comp |
|-------------------------------------------|------------|----------|-------------|----------|-----------------------------|---------|-------------|-------------|-------------|-------------|--------------|---------------|--------------|---------------|
|                                           | 11/23/2009 | 0.5-1    | 11/23/2009  | 0-0.4    | 11/30/2009                  | 0-0.5   | 11/30/2009  | 0.5-0.8     | 6/25/2010   | 0-0.5       | 6/25/2010    | 0-0.9         | 6/25/2010    | 0-0.5         |
| Metals by C200.7 (mg/kg)                  |            |          |             |          |                             |         |             |             |             |             |              |               |              |               |
| ALUMINUM                                  | 8580       | 10200    | 9760 J      | 13200 J  | 7520 J                      | 7340 J  | 11900 J     | 13800 J     |             |             |              |               |              |               |
| ANTIMONY                                  | 1.2 U      | 6.4      | 2.2 U       | 2 U      | 0.79 UR                     | 0.79 UR | 1.1 UR      | 1 UR        |             |             |              |               |              |               |
| ARSENIC                                   | 5.6        | 170      | 5.2         | 6.8      | 6.2 J                       | 6.7 J   | 6.1 J       | 6.1 J       |             |             |              |               |              |               |
| BARIUM                                    | 130        | 170      | 81.2 J      | 77.7 J   | 199 J                       | 409 J   | 173 J       | 186 J       |             |             |              |               |              |               |
| BERYLLIUM                                 | 0.8 J+     | 0.85 J+  | 0.53 J      | 0.54 J   | 0.13 J                      | 0.16 J  | 0.38 J      | 0.46 J      |             |             |              |               |              |               |
| CADMIUM                                   | 0.64 J-    | 0.31 J-  | 0.73 J      | 0.88 J   | 3.9 J                       | 4.9 J   | 2.5 J       | 2.5 J       |             |             |              |               |              |               |
| CALCIUM                                   | 5660       | 14700    | 39000 J     | 38600 J  | 6000 J                      | 5340 J  | 16900 J     | 15500 J     |             |             |              |               |              |               |
| CHROMIUM                                  | 20.9       | 15.5     | 136 J       | 201 J    | 193 J                       | 179 J   | 98.7 J      | 102 J       |             |             |              |               |              |               |
| COBALT                                    | 12.2       | 13       | 7.2 J       | 8.5 J    | 10.2 J                      | 10.8 J  | 10.8 J      | 12.5 J      |             |             |              |               |              |               |
| COPPER                                    | 37         | 15.7     | 239 J       | 292 J    | 850 J                       | 862 J   | 282 J       | 287 J       |             |             |              |               |              |               |
| IRON                                      | 24600      | 25800    | 16300 J     | 17700 J  | 14300 J                     | 15700 J | 20000 J     | 22000 J     |             |             |              |               |              |               |
| LEAD                                      | 42.7       | 18.3     | 586 J       | 790 J    | 1930 J                      | 1060 J  | 331 J       | 377 J       |             |             |              |               |              |               |
| MAGNESIUM                                 | 3640       | 4600     | 9590 J      | 10300 J  | 3600 J                      | 3540 J  | 7980 J      | 7810 J      |             |             |              |               |              |               |
| MANGANESE                                 | 1070       | 738      | 801 J       | 500 J    | 177 J                       | 172 J   | 388 J       | 372 J       |             |             |              |               |              |               |
| NICKEL                                    | 27         | 22.8     | 27.4        | 37       | 136 J                       | 148 J   | 53.3 J      | 61 J        |             |             |              |               |              |               |
| POTASSIUM                                 | 927        | 980      | 1100 J      | 1180 J   | 1040 J                      | 1120 J  | 1740 J      | 1850 J      |             |             |              |               |              |               |
| SELENIUM                                  | 0.7 U      | 0.73 U   | 2.3 J       | 2.6 J    | 2.5 J                       | 2.4 J   | 3.5 J       | 3.4 J       |             |             |              |               |              |               |
| SILVER                                    | 0.13 UR    | 0.13 UR  | 0.25 U      | 0.22 U   | 3.1 J                       | 3.1 J   | 2 J         | 2.3 J       |             |             |              |               |              |               |
| SODIUM                                    | 196 J      | 358 J    | 5.8 UJ      | 5.2 UJ   | 136 J                       | 155 J   | 233 J       | 265 J       |             |             |              |               |              |               |
| THALLIUM                                  | 0.46 U     | 0.47 U   | 0.88 U      | 0.79 U   | 0.61 U                      | 0.61 U  | 0.85 U      | 0.8 U       |             |             |              |               |              |               |
| VANADIUM                                  | 19.7       | 24.4     | 15.2        | 17.1     | 16.5 J                      | 18.6 J  | 21.1 J      | 22.3 J      |             |             |              |               |              |               |
| ZINC                                      | 127        | 133      | 1420 J      | 1850 J   | 1350 J                      | 1670 J  | 699 J       | 823 J       |             |             |              |               |              |               |
| Mercury by CV (mg/kg)                     |            |          |             |          |                             |         |             |             |             |             |              |               |              |               |
| MERCURY                                   | 0.12 J     | 0.052 U  | 0.14 J      | 0.2 J    | 1.5 J                       | 1.4 J   | 0.69 J      | 0.67 J      |             |             |              |               |              |               |
| PCBS by MC ARO (mg/kg)                    |            |          |             |          |                             |         |             |             |             |             |              |               |              |               |
| PCB-1016 (AROCOR 1016)                    | 0.011 U    | 0.012 U  | 0.021 U     | 0.02 U   | 0.071 U                     | 0.069 U | 0.095 U     | 0.087 U     |             |             |              |               |              |               |
| PCB-1221 (AROCOR 1221)                    | 0.02 U     | 0.023 U  | 0.04 U      | 0.037 U  | 0.071 U                     | 0.069 U | 0.095 U     | 0.087 U     |             |             |              |               |              |               |
| PCB-1232 (AROCOR 1232)                    | 0.0072 U   | 0.0083 U | 0.015 U     | 0.014 U  | 0.071 U                     | 0.069 U | 0.095 U     | 0.087 U     |             |             |              |               |              |               |
| PCB-1242 (AROCOR 1242)                    | 0.0046 U   | 0.0053 U | 0.0093 U    | 0.0086 U | 0.071 U                     | 0.069 U | 0.095 U     | 0.087 U     |             |             |              |               |              |               |
| PCB-1248 (AROCOR 1248)                    | 0.0076 U   | 0.0087 U | 0.015 U     | 0.014 U  | 3.8 J                       | 10      | 0.75 J      | 0.85 J      |             |             |              |               |              |               |
| PCB-1254 (AROCOR 1254)                    | 0.0061 U   | 0.007 U  | 0.012 U     | 0.011 U  | 8.4                         | 12      | 0.4 J       | 0.44 J      |             |             |              |               |              |               |
| PCB-1260 (AROCOR 1260)                    | 0.0089 U   | 0.01 U   | 0.018 U     | 0.017 U  | 3.1 J                       | 3.7 J   | 0.12 NJ     | 0.14 NJ     |             |             |              |               |              |               |
| PCB-1262 (AROCOR 1262)                    | 0.0085 U   | 0.0097 U | 0.017 U     | 0.016 U  | 0.071 U                     | 0.069 U | 0.095 U     | 0.087 U     |             |             |              |               |              |               |
| PCB-1268 (AROCOR 1268)                    | 0.012 U    | 0.014 U  | 0.024 U     | 0.022 U  | 0.071 U                     | 0.069 U | 0.095 U     | 0.087 U     |             |             |              |               |              |               |
| PCBs (total)                              | 0.011 U    | 0.011 U  | 0.011 U     | 0.011 U  | 15 J                        | 26 J    | 1.3 J       | 1.4 J       |             |             |              |               |              |               |
| SVOAs by MC SVOA (L-S) and (SIMS) (mg/kg) |            |          |             |          |                             |         |             |             |             |             |              |               |              |               |
| 2-METHYLNAPHTHALENE                       | 0.013      | 0.0047   | 0.0029 U    | 0.038    | 0.064                       | 0.069   | 0.024       | 0.025       |             |             |              |               |              |               |
| ACENAPHTHENE                              | 0.007      | 0.0093 J | 0.0028 U    | 0.053    | 0.72                        | 0.79 J  | 0.036       | 0.034       |             |             |              |               |              |               |
| ACENAPHTHYLENE                            | 0.011      | 0.0027   | 0.0035 U    | 0.024 J  | 0.2                         | 0.24    | 0.077       | 0.086       |             |             |              |               |              |               |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID |  | Sample Date |           | Sample Depth Range (ft BGS) |           | R7-123-T-Z2 | R7-124-T-Z1 | R7-125-T-Z1 | R7-125-T-Z2 | R7-172-C-Z1a | R7-172-C-Comp | R7-173-C-Z1a | R7-173-C-Comp |
|-----------------------------------------|-----------|--|-------------|-----------|-----------------------------|-----------|-------------|-------------|-------------|-------------|--------------|---------------|--------------|---------------|
|                                         |           |  |             |           |                             |           | 0.5-1       | 0-0.4       | 0-0.5       | 0.5-0.8     | 0-0.5        | 0-0.9         | 0-0.5        | 0-1.1         |
| ANTHRACENE                              |           |  | 0.019       | 0.019     | 0.019                       | 0.035 J   | 0.17        | 2.9         | 1.7 J       | 3.8         | 0.34         | 0.23          |              |               |
| BENZO(A)ANTHRACENE                      |           |  | 0.16        | 0.096     | 0.0063 U                    | 0.79      | 3.7         | 3.1         | 4.7         | 0.8         | 0.66         |               |              |               |
| BENZO(A)PYRENE                          |           |  | 0.092       | 0.075     | 0.0056 U                    | 0.6       | 1           | 3.5         | 3           | 0.64        | 0.5          |               |              |               |
| BENZO(B)FLUORANTHENE                    |           |  | 0.093       | 0.093     | 0.0079 UJ                   | 0.87 J    | 5.1         | 4.9         | 0.92        | 0.23        | 0.13         |               |              |               |
| BENZO(K)FLUORANTHENE                    |           |  | 0.069       | 0.061     | 0.0065 J                    | 0.52      | 2.5         | 3           | 0.64        | 0.5         |              |               |              |               |
| CHRYSENE                                |           |  | 0.16 J      | 0.11 J    | 0.0051 J                    | 0.79 J    | 5.1         | 4.9         | 0.92        | 0.23        | 0.13         |               |              |               |
| DIBENZ(A,H)ANTHRACENE                   |           |  | 0.014       | 0.0096    | 0.0067 J                    | 0.39      | 0.8         | 0.92 J      | 5.9         | 1.6         | 1.3          |               |              |               |
| FLUORANTHENE                            |           |  | 0.23 J      | 0.3       | 0.0086 U                    | 2.1       | 7.1         | 5.9         | 0.052       | 0.041       |              |               |              |               |
| FLUORENE                                |           |  | 0.019       | 0.015     | 0.0032                      | 0.069     | 0.41        | 0.59        | 0.052       | 0.041       |              |               |              |               |
| INDENO(1,2,3-C,D)PYRENE                 |           |  | 0.066       | 0.068     | 0.011 U                     | 1         | 1           | 2.2         | 0.5 J       | 0.3 J       |              |               |              |               |
| NAPHTHALENE                             |           |  | 0.014 J     | 0.0058 J  | 0.0047 U                    | 0.043 UJ  | 0.062       | 0.067       | 0.024       | 0.022       |              |               |              |               |
| PENTACHLOROPHENOL                       |           |  | 0.0068      | 0.0019    | 0.014 U                     | 0.013     | --          | --          | --          | --          |              |               |              |               |
| PHENANTHRENE                            |           |  | 0.1         | 0.14      | 0.0038 J                    | 1.1       | 5.3         | 4.9 J       | 0.64        | 0.46        |              |               |              |               |
| PYRENE                                  |           |  | 0.22        | 0.21      | 0.0079                      | 1.3       | 6.9 J       | 7 J         | 1.3 J       | 1.1 J       |              |               |              |               |
| PAHs (total)                            |           |  | 1.3         | 1.2       | 0.053                       | 10        | 42          | 46          | 9.2         | 7.3         |              |               |              |               |
| <b>Pesticides by MC PEST (mg/kg)</b>    |           |  |             |           |                             |           |             |             |             |             |              |               |              |               |
| ALDRIN                                  |           |  | 0.0037 U    | 0.0043 U  | 0.0075 U                    | 0.0069 U  | --          | --          | --          | --          |              |               |              |               |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |           |  | 0.0058 U    | 0.0067 U  | 0.0012 U                    | 0.0011 U  | --          | --          | --          | --          |              |               |              |               |
| ALPHA-CHLORDANE                         |           |  | 0.0029 U    | 0.0033 U  | 0.0059 U                    | 0.0054 U  | --          | --          | --          | --          |              |               |              |               |
| ALPHA ENDOSULFAN                        |           |  | 0.0034 U    | 0.0039 U  | 0.0007 U                    | 0.0064 U  | --          | --          | --          | --          |              |               |              |               |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |           |  | 0.0077 U    | 0.0088 U  | 0.0016 U                    | 0.0014 U  | --          | --          | --          | --          |              |               |              |               |
| BETA ENDOSULFAN                         |           |  | 0.002 U     | 0.0023 U  | 0.004 U                     | 0.0037 U  | --          | --          | --          | --          |              |               |              |               |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |           |  | 0.0069 U    | 0.0079 U  | 0.0014 U                    | 0.0013 U  | --          | --          | --          | --          |              |               |              |               |
| DIELDRIN                                |           |  | 0.0068 U    | 0.0079 U  | 0.0014 U                    | 0.0013 U  | --          | --          | --          | --          |              |               |              |               |
| ENDOSULFAN SULFATE                      |           |  | 0.0068 U    | 0.0079 U  | 0.0014 U                    | 0.0013 U  | --          | --          | --          | --          |              |               |              |               |
| ENDRIN                                  |           |  | 0.0068 U    | 0.0079 U  | 0.0014 U                    | 0.0013 U  | --          | --          | --          | --          |              |               |              |               |
| ENDRIN ALDEHYDE                         |           |  | 0.0021 U    | 0.0025 U  | 0.0044 U                    | 0.004 U   | --          | --          | --          | --          |              |               |              |               |
| ENDRIN KETONE                           |           |  | 0.0026 U    | 0.003 U   | 0.0054 U                    | 0.005 U   | --          | --          | --          | --          |              |               |              |               |
| GAMMA BHC (LINDANE)                     |           |  | 0.0055 U    | 0.0063 U  | 0.0011 U                    | 0.001 U   | --          | --          | --          | --          |              |               |              |               |
| GAMMA-CHLORDANE                         |           |  | 0.0043 U    | 0.005 U   | 0.0088 U                    | 0.0081 U  | --          | --          | --          | --          |              |               |              |               |
| HEPTACHLOR                              |           |  | 0.0007 U    | 0.00081 U | 0.0014 U                    | 0.0013 U  | --          | --          | --          | --          |              |               |              |               |
| HEPTACHLOR EPOXIDE                      |           |  | 0.00049 U   | 0.00056 U | 0.001 U                     | 0.00092 U | --          | --          | --          | --          |              |               |              |               |
| METHOXYCHLOR                            |           |  | 0.0021 UJ   | 0.0025 UJ | 0.0043 U                    | 0.004 U   | --          | --          | --          | --          |              |               |              |               |
| P,P'-DDD                                |           |  | 0.0015 U    | 0.0017 U  | 0.0031 U                    | 0.0028 U  | --          | --          | --          | --          |              |               |              |               |
| P,P'-DDE                                |           |  | 0.00091 U   | 0.0011 U  | 0.0019 U                    | 0.0017 U  | --          | --          | --          | --          |              |               |              |               |
| P,P'-DDT                                |           |  | 0.0026 U    | 0.0029 U  | 0.0052 U                    | 0.0048 U  | --          | --          | --          | --          |              |               |              |               |
| TOXAPHENE                               |           |  | 0.11 U      | 0.12 U    | 0.22 U                      | 0.2 U     | --          | --          | --          | --          |              |               |              |               |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte | Sample ID    |               | Sample Date  |             | Sample Depth Range (ft BGS) |               | Metals by C200.7 (mg/kg) |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|---------|--------------|---------------|--------------|-------------|-----------------------------|---------------|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----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|         | R7-174-C-Z1a | R7-174-C-Comp | R7-175-C-Z1a | R7-175-C-Z1 | R7-176-C-Z1a                | R7-176-C-Comp | R7-177-C-Z1a             | R7-177-C-Z1b | R7-177-C-Z1c | R7-177-C-Z1d | R7-177-C-Z1e | R7-177-C-Z1f | R7-177-C-Z1g | R7-177-C-Z1h | R7-177-C-Z1i | R7-177-C-Z1j | R7-177-C-Z1k | R7-177-C-Z1l | R7-177-C-Z1m | R7-177-C-Z1n | R7-177-C-Z1o | R7-177-C-Z1p | R7-177-C-Z1q | R7-177-C-Z1r | R7-177-C-Z1s | R7-177-C-Z1t | R7-177-C-Z1u | R7-177-C-Z1v | R7-177-C-Z1w | R7-177-C-Z1x | R7-177-C-Z1y | R7-177-C-Z1z |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |         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|         | 6/25/2010    | 6/25/2010     | 6/24/2010    | 6/24/2010   | 6/24/2010                   | 6/24/2010     | 6/24/2010                | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010    | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 6/24/2010 | 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Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID                               |                             | R7-174-C-Z1a | R7-174-C-Comp | R7-175-C-Z1a | R7-175-C-Z1 | R7-176-C-Z1a | R7-176-C-Comp | R7-177-C-Z1a | R7-177-C-Z1 |
|-----------------------------------------|-----------------------------|--------------|---------------|--------------|-------------|--------------|---------------|--------------|-------------|
| Sample Date                             | Sample Date                 | 6/25/2010    | 6/25/2010     | 6/24/2010    | 6/24/2010   | 6/24/2010    | 6/24/2010     | 6/24/2010    | 6/24/2010   |
| Sample Depth Range (ft BGS)             | Sample Depth Range (ft BGS) | 0-0.5        | 0-1.2         | 0-0.5        | 0.5-1.4     | 0-0.5        | 0-0.9         | 0-0.5        | 0.5-1.1     |
| Analyte                                 |                             |              |               |              |             |              |               |              |             |
| ANTHRACENE                              |                             | 0.27         | 0.39          | 0.23         | 0.18        | 0.52         | 0.44          | 0.28         | 0.13        |
| BENZO(A)ANTHRACENE                      |                             | 0.33         | 1.3           | 0.8          | 0.49        | 2.3          | 1.4           | 0.85         | 1           |
| BENZO(A)PYRENE                          |                             | 0.37         | 1.1           | 0.88         | 0.52        | 0.91         | 1.2           | 0.92         | 1           |
| BENZO(B)FLUORANTHENE                    |                             | 0.28         | 0.97          | 0.87         | 0.49        | 0.82         | 0.84          | 0.88         | 0.85        |
| BENZO(K)FLUORANTHENE                    |                             | 0.24         | 0.8           | 0.63         | 0.35        | 1            | 0.83          | 0.83         | 0.74        |
| CHRYSENE                                |                             | 0.49         | 1.4           | 0.98         | 0.54        | 3.2          | 1.4           | 0.96         | 1.1 J       |
| DIBENZ(A,H)ANTHRACENE                   |                             | 0.23         | 0.3           | 0.21         | 0.12        | 0.31         | 0.63          | 0.3          | 0.26        |
| FLUORANTHENE                            |                             | 0.66         | 1.7 U         | 1.4          | 0.88        | 3.9          | 1.6           | 1.7          | 1.6         |
| FLUORENE                                |                             | 0.059        | 0.087         | 0.041        | 0.035       | 0.18         | 0.057         | 0.051        | 0.049       |
| INDENO(1,2,3-C,D)PYRENE                 |                             | 0.33         | 0.58          | 0.57         | 0.29        | 0.54         | 0.61          | 0.56         | 0.63        |
| NAPHTHALENE                             |                             | 0.021        | 0.021         | 0.014        | 0.015       | 0.044        | 0.016         | 0.022        | 0.029       |
| PENTACHLOROPHENOL                       |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| PHENANTHRENE                            |                             | 0.47 J       | 0.63          | 0.5 J        | 0.36        | 1.9          | 0.62          | 0.55         | 0.48        |
| PYRENE                                  |                             | 0.62 J       | 2.5           | 1.3 J        | 0.79        | 4.2 J        | 2             | 1.4          | 1.6 J       |
| PAHs (total)                            |                             | 5            | 13            | 9.2          | 5.5         | 21           | 12            | 10           | 10          |
| Pesticides by MC PEST (mg/kg)           |                             |              |               |              |             |              |               |              |             |
| ALDRIN                                  |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ALPHA-CHLORDANE                         |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ALPHA ENDOSULFAN                        |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| BETA ENDOSULFAN                         |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| DIELDRIN                                |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ENDOSULFAN SULFATE                      |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ENDRIN                                  |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ENDRIN ALDEHYDE                         |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| ENDRIN KETONE                           |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| GAMMA BHC (LINDANE)                     |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| GAMMA-CHLORDANE                         |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| HEPTACHLOR                              |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| HEPTACHLOR EPOXIDE                      |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| METHOXYCHLOR                            |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| P,P'-DDD                                |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| P,P'-DDE                                |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| P,P'-DDT                                |                             | --           | --            | --           | --          | --           | --            | --           | --          |
| TOXAPHENE                               |                             | --           | --            | --           | --          | --           | --            | --           | --          |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | Metals by C200.7 (mg/kg) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Analyte   |  |             |  |                             |  |                          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID                   |       | R7-177-CR |       | R7-178-C-Z1a |       | R7-178-C-Z1 |       | R7-179-C-Z1a |       | R7-179-C-Comp |        | R7-180-C-Z1a |  | R7-180-C-Comp |  | R7-181-C-Z1a |  |
|-----------------------------------------|-----------------------------|-------|-----------|-------|--------------|-------|-------------|-------|--------------|-------|---------------|--------|--------------|--|---------------|--|--------------|--|
|                                         | Sample Date                 |       | 6/24/2010 |       | 6/24/2010    |       | 6/24/2010   |       | 6/23/2010    |       | 6/23/2010     |        | 6/23/2010    |  | 6/23/2010     |  | 7/1/2010     |  |
|                                         | Sample Depth Range (ft BGS) |       | 0.5-1.1   |       | 0-0.5        |       | 0.5-1.2     |       | 0-0.5        |       | 0-0.7         |        | 0-0.5        |  | 0-1.1         |  | 0-0.5        |  |
| ANTHRACENE                              | 0.19                        | 0.41  | 0.41      | 1.1   | 0.53         | 0.41  | 0.41        | 0.41  | 0.53         | 2.7   | 0.79          | 0.11 J |              |  |               |  |              |  |
| BENZO(A)ANTHRACENE                      | 1                           | 1.1   | 1.1       | 3.4   | 2.1          | 1.2   | 1.2         | 1.2   | 3.3          | 3.3   | 3.1           | 0.26   |              |  |               |  |              |  |
| BENZO(A)PYRENE                          | 1.1                         | 0.51  | 0.51      | 2.8   | 1.9          | 1.3   | 1.3         | 1.3   | 1.7 J        | 1.7 J | 2.7           | 0.28   |              |  |               |  |              |  |
| BENZO(B)FLUORANTHENE                    | 0.87                        | 0.59  | 0.59      | 2.3   | 1.7          | 1.3   | 1.3         | 1.3   | 1.1          | 1.1   | 1.8           | 0.13 J |              |  |               |  |              |  |
| BENZO(K)FLUORANTHENE                    | 0.71                        | 0.56  | 0.56      | 1.8   | 1.4          | 1.1   | 1.1         | 1.1   | 1.3          | 2.1   | 0.25          |        |              |  |               |  |              |  |
| CHRYSENE                                | 1.2 J                       | 1.4   | 1.4       | 3.4   | 2.3          | 1.5   | 1.5         | 1.5   | 4.2          | 3 J   | 0.15          |        |              |  |               |  |              |  |
| DIBENZ(A,H)ANTHRACENE                   | 0.24                        | 0.2   | 0.2       | 0.56  | 0.57         | 0.34  | 0.34        | 0.34  | 0.51         | 0.57  | 0.022 J       |        |              |  |               |  |              |  |
| FLUORANTHENE                            | 1.5                         | 5.2   | 5.2       | 4.6   | 5.3 J        | 2.2   | 2.2         | 2.2   | 5.5          | 4.2 J | 0.51          |        |              |  |               |  |              |  |
| FLUORENE                                | 0.042 J                     | 0.15  | 0.15      | 0.71  | 0.26         | 0.15  | 0.15        | 0.15  | 0.67         | 0.43  | 0.032         |        |              |  |               |  |              |  |
| INDENO(1,2,3-C,D)PYRENE                 | 0.61                        | 0.33  | 0.33      | 1.3   | 1.2          | 0.98  | 0.98        | 0.98  | 0.81         | 1.5 J | 0.047         |        |              |  |               |  |              |  |
| NAPHTHALENE                             | 0.022                       | 0.1   | 0.1       | 0.065 | 0.11         | 0.092 | 0.092       | 0.092 | 0.093        | 0.34  | 0.012         |        |              |  |               |  |              |  |
| PENTACHLOROPHENOL                       | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | -- J          |        |              |  |               |  |              |  |
| PHENANTHRENE                            | 0.47                        | 1.1   | 1.1       | 3.2   | 1.9          | 0.93  | 0.93        | 0.93  | 5            | 2.6   | 0.23 J        |        |              |  |               |  |              |  |
| PYRENE                                  | 1.7 J                       | 4.3 J | 4.3 J     | 6.2   | 4.4 J        | 2     | 2           | 2     | 6.1 J        | 7.4 J | 0.47 J        |        |              |  |               |  |              |  |
| PAHs (total)                            | 10                          | 17    | 17        | 34    | 25           | 15    | 15          | 15    | 36           | 33    | 2.6           |        |              |  |               |  |              |  |
| Pesticides by MC PEST (mg/kg)           |                             |       |           |       |              |       |             |       |              |       |               |        |              |  |               |  |              |  |
| ALDRIN                                  | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ALPHA-CHLORDANE                         | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ALPHA ENDOSULFAN                        | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| BETA ENDOSULFAN                         | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| DIELDRIN                                | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ENDOSULFAN SULFATE                      | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ENDRIN                                  | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ENDRIN ALDEHYDE                         | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| ENDRIN KETONE                           | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| GAMMA BHC (LINDANE)                     | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| GAMMA-CHLORDANE                         | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| HEPTACHLOR                              | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| HEPTACHLOR EPOXIDE                      | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| METHOXYCHLOR                            | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| P,P'-DDD                                | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| P,P'-DDE                                | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| P,P'-DDT                                | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |
| TOXAPHENE                               | --                          | --    | --        | --    | --           | --    | --          | --    | --           | --    | --            | --     |              |  |               |  |              |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                         | Sample ID R7-181-C-Comp R7-182-C-COMP R7-183-C-Z1a R7-183-C-Comp R7-184-C-Comp R7-185-C-Z1a R7-185-C-Comp R7-186-C-Z1a |          |          |          |          |          |           |           |           |           |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
|                                                 | Sample Date                                                                                                            | 7/1/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 |
| Sample Depth Range (ft BGS)                     |                                                                                                                        |          |          |          |          |          |           |           |           |           |
|                                                 | 0-1.3                                                                                                                  | 0-0.8    | 0-0.5    | 0-1.3    | 0-0.75   | 0-0.5    | 0-0.7     | 0-0.5     | 0-0.7     | 0-0.5     |
| <b>Metals by C200.7 (mg/kg)</b>                 |                                                                                                                        |          |          |          |          |          |           |           |           |           |
| ALUMINUM                                        | 6900                                                                                                                   | 11900    | 11100 J  | 10500 J  | 10200 J  | 10500 J  | 9540 J    | 10500 J   | 9540 J    | 6760      |
| ANTIMONY                                        | 0.55 UJ                                                                                                                | 0.59 UJ  | 1.1 UJ   | 0.9 UJ   | 0.86 UJ  | 1.2 UJ   | 0.92 UJ   | 1.2 UJ    | 0.92 UJ   | 0.68 UJ   |
| ARSENIC                                         | 4.2 J                                                                                                                  | 12.6 J   | 4.4 J    | 4.8 J    | 10.7 J   | 4.2 J    | 4.5 J     | 4.2 J     | 4.5 J     | 3.9 J     |
| BARIUM                                          | 141                                                                                                                    | 139      | 869 J    | 357 J    | 453 J    | 147 J    | 163 J     | 147 J     | 163 J     | 391       |
| BERYLLIUM                                       | 0.36 J                                                                                                                 | 0.51 J   | 0.41 J   | 0.45 J   | 0.41 J   | 0.31 J   | 0.28 J    | 0.31 J    | 0.28 J    | 0.2 J     |
| CADMIUM                                         | 1 J                                                                                                                    | 0.03 UJ  | 1.6 J    | 5.8 J    | 21.1 J   | 2.4 J    | 1.6 J     | 2.4 J     | 1.6 J     | 1.7 J     |
| CALCIUM                                         | 4310                                                                                                                   | 6540     | 18200 J  | 15500 J  | 10000 J  | 18700 J  | 14300 J   | 18700 J   | 14300 J   | 12900     |
| CHROMIUM                                        | 38.8                                                                                                                   | 44.5     | 91.3 J   | 116 J    | 409 J    | 94.6 J   | 90.7 J    | 94.6 J    | 90.7 J    | 82.8      |
| COBALT                                          | 7.8 J                                                                                                                  | 11 J     | 0.12 UJ  | 0.09 UJ  | 12.7 J   | 0.14 UJ  | 0.1 UJ    | 0.14 UJ   | 0.1 UJ    | 0.075 UJ  |
| COPPER                                          | 128                                                                                                                    | 123      | 387 J    | 407 J    | 1030 J   | 293 J    | 257 J     | 293 J     | 257 J     | 324       |
| IRON                                            | 14200                                                                                                                  | 18500    | 18600 J  | 17200 J  | 21200 J  | 17600 J  | 17800 J   | 17600 J   | 17800 J   | 12500     |
| LEAD                                            | 165                                                                                                                    | 209      | 364 J    | 682 J    | 1300 J   | 324 J    | 294 J     | 324 J     | 294 J     | 275       |
| MAGNESIUM                                       | 2910                                                                                                                   | 4470     | 8000 J   | 6820 J   | 6050 J   | 8450 J   | 6670 J    | 8450 J    | 6670 J    | 5550      |
| MANGANESE                                       | 466                                                                                                                    | 563      | 288 J    | 293 J    | 192 J    | 306 J    | 245 J     | 306 J     | 245 J     | 255       |
| NICKEL                                          | 29.1                                                                                                                   | 36.8     | 56.3 J   | 66.3 J   | 180 J    | 51.5 J   | 53 J      | 51.5 J    | 53 J      | 43        |
| POTASSIUM                                       | 953                                                                                                                    | 1390     | 1700 J   | 1410 J   | 1200 J   | 168 UJ   | 1330 J    | 168 UJ    | 1330 J    | 9.3 UJ    |
| SELENIUM                                        | 0.81 J                                                                                                                 | 1.1 J    | 1.8 J    | 1.9 J    | 6.3 J    | 1.8 J    | 1.6 J     | 1.8 J     | 1.6 J     | 1 J       |
| SILVER                                          | 0.57 U                                                                                                                 | 0.62 U   | 1.2 U    | 0.94 U   | 5.6 J    | 1.5 J    | 1.6 J     | 1.5 J     | 1.6 J     | 1.1 J     |
| SODIUM                                          | 4.1 UJ                                                                                                                 | 4.4 UJ   | 8.4 UJ   | 6.7 UJ   | 198 J    | 287 J    | 173 J     | 287 J     | 173 J     | 153 J     |
| THALLIUM                                        | 0.42 U                                                                                                                 | 0.45 U   | 0.87 U   | 0.69 U   | 0.66 U   | 0.95 U   | 0.71 U    | 0.95 U    | 0.71 U    | 0.53 U    |
| VANADIUM                                        | 15.6 J                                                                                                                 | 22.4 J   | 17.6 J   | 18.8 J   | 23.2 J   | 18.7 J   | 20.2 J    | 18.7 J    | 20.2 J    | 11.6      |
| ZINC                                            | 311                                                                                                                    | 320      | 697 J    | 1190 J   | 2360 J   | 721 J    | 628 J     | 721 J     | 628 J     | 469       |
| <b>Mercury by CV (mg/kg)</b>                    |                                                                                                                        |          |          |          |          |          |           |           |           |           |
| MERCURY                                         | 0.46                                                                                                                   | 0.69     | 1.1 J    | 2.4 J    | 3.6 J    | 1.1 J    | 0.55 J    | 1.1 J     | 0.55 J    | 0.78      |
| <b>PCBS by MC ARO (mg/kg)</b>                   |                                                                                                                        |          |          |          |          |          |           |           |           |           |
| PCB-1016 (AROCOR 1016)                          | 0.045 U                                                                                                                | 0.052 U  | 0.033 U  | 0.033 U  | 0.069 U  | 0.091 U  | 0.07 U    | 0.091 U   | 0.07 U    | 0.06 U    |
| PCB-1221 (AROCOR 1221)                          | 0.045 U                                                                                                                | 0.052 U  | 0.033 U  | 0.033 U  | 0.069 U  | 0.091 U  | 0.07 U    | 0.091 U   | 0.07 U    | 0.06 U    |
| PCB-1232 (AROCOR 1232)                          | 0.045 U                                                                                                                | 0.052 U  | 0.033 U  | 0.033 U  | 0.069 U  | 0.091 U  | 0.07 U    | 0.091 U   | 0.07 U    | 0.06 U    |
| PCB-1242 (AROCOR 1242)                          | 0.045 U                                                                                                                | 0.052 U  | 0.033 U  | 0.033 U  | 0.069 U  | 0.091 U  | 0.07 U    | 0.091 U   | 0.07 U    | 0.06 U    |
| PCB-1248 (AROCOR 1248)                          | 0.074 NJ                                                                                                               | 0.052 U  | 0.07 NJ  | 0.033 U  | 0.069 U  | 0.091 U  | 0.43 NJ   | 0.091 U   | 0.43 NJ   | 0.06 U    |
| PCB-1254 (AROCOR 1254)                          | 0.037 J                                                                                                                | 0.052 U  | 0.059    | 0.033 U  | 6.9      | 0.091 U  | 0.5       | 0.091 U   | 0.5       | 0.06 U    |
| PCB-1260 (AROCOR 1260)                          | 0.045 U                                                                                                                | 0.052 U  | 0.027 J  | 0.033 U  | 0.069 U  | 0.091 U  | 0.19      | 0.091 U   | 0.19      | 0.06 U    |
| PCB-1262 (AROCOR 1262)                          | 0.045 U                                                                                                                | 0.052 U  | 0.033 U  | 0.033 U  | 0.069 U  | 0.091 U  | 0.07 U    | 0.091 U   | 0.07 U    | 0.06 U    |
| PCB-1268 (AROCOR 1268)                          | 0.045 U                                                                                                                | 0.052 U  | 0.033 U  | 0.033 U  | 0.069 U  | 0.091 U  | 0.07 U    | 0.091 U   | 0.07 U    | 0.06 U    |
| PCBs (total)                                    | 0.11 J                                                                                                                 | 0.052 U  | 0.16 J   | 0.033 U  | 6.9      | 0.091 U  | 1.1 NJ    | 0.091 U   | 1.1 NJ    | 0.06 U    |
| <b>SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)</b> |                                                                                                                        |          |          |          |          |          |           |           |           |           |
| 2-METHYLNAPHTHALENE                             | 0.0084                                                                                                                 | 0.012    | 0.012 J  | 0.031    | 0.045    | 0.037 J  | 0.026     | 0.037 J   | 0.026     | 0.055     |
| ACENAPHTHENE                                    | 0.019                                                                                                                  | 0.012    | 0.025 J  | 0.12     | 0.16     | 0.12 J   | 0.079     | 0.12 J    | 0.079     | 0.21      |
| ACENAPHTHYLENE                                  | 0.026                                                                                                                  | 0.031    | 0.19     | 0.23 J   | 0.19     | 0.18 J   | 0.2       | 0.18 J    | 0.2       | 0.22      |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID R7-181-C-Comp R7-182-C-COMP R7-183-C-Z1a R7-183-C-Comp R7-184-C-Comp R7-185-C-Z1a R7-185-C-Comp R7-186-C-Z1a |  |          |          |          |          |          |           |           |           |           |
|------------------------------------------------------------------------------------------------------------------------|--|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
| Sample Date                                                                                                            |  | 7/1/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 |
| Sample Depth Range (ft BGS)                                                                                            |  | 0-1.3    | 0-0.8    | 0-0.5    | 0-1.3    | 0-0.5    | 0-0.75    | 0-0.5     | 0-0.7     | 0-0.5     |
| Analyte                                                                                                                |  |          |          |          |          |          |           |           |           |           |
| ANTHRACENE                                                                                                             |  | 0.092    | 0.032    | 0.056 J  | 0.23 J   | 0.49     |           | 0.23 J    | 0.32      | 1.4       |
| BENZO(A)ANTHRACENE                                                                                                     |  | 0.28 J   | 0.14     | 0.52     | 0.97     | 2        |           | 0.86      | 0.76      | 1.9       |
| BENZO(A)PYRENE                                                                                                         |  | 0.19 J   | 0.052 J  | 0.54     | 0.97     | 0.2      |           | 0.9       | 0.81      | 0.51      |
| BENZO(B)FLUORANTHENE                                                                                                   |  | 0.39     | 0.064 J  | 0.42     | 0.61     | 0.3      |           | 0.72      | 0.6       | 0.38      |
| BENZO(K)FLUORANTHENE                                                                                                   |  | 0.2      | 0.048    | 0.52 J   | 0.95 J   | 0.21     |           | 0.79 J    | 0.67      | 0.57      |
| CHRYSENE                                                                                                               |  | 0.35     | 0.21     | 0.7      | 1.1      | 2.9      |           | 1.1       | 0.95      | 2.6       |
| DIBENZ(A,H)ANTHRACENE                                                                                                  |  | 0.021    | 0.023    | 0.018 J  | 0.092 J  | 0.078    |           | 0.079 J   | 0.053     | 0.23      |
| FLUORANTHENE                                                                                                           |  | 0.33     | 0.35     | 1 J      | 1.7      | 5.3      |           | 1.7 J     | 1.3       | 4.3       |
| FLUORENE                                                                                                               |  | 0.023    | 0.017    | 0.023    | 0.16     | 0.14     |           | 0.16      | 0.092     | 0.23      |
| INDENO(1,2,3-C,D)PYRENE                                                                                                |  | 0.041    | 0.037    | 0.033 J  | 0.15     | 0.15     |           | 0.13      | 0.094 J   | 0.31      |
| NAPHTHALENE                                                                                                            |  | 0.0084   | 0.0099   | 0.012    | 0.095    | 0.046    |           | 0.042     | 0.02      | 0.045     |
| PENTACHLOROPHENOL                                                                                                      |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| PHENANTHRENE                                                                                                           |  | 0.28     | 0.16 J   | 0.56 J   | 0.85 J   | 2.6      |           | 0.9 J     | 0.62      | 2.3       |
| PYRENE                                                                                                                 |  | 0.46 J   | 0.24 J   | 1 J      | 1.7 J    | 3.4 J    |           | 1.5 J     | 1.3 J     | 2.6 J     |
| PAHs (total)                                                                                                           |  | 2.8      | 1.5      | 5.7      | 10       | 18       |           | 9.6       | 8         | 18        |
| Pesticides by MC PEST (mg/kg)                                                                                          |  |          |          |          |          |          |           |           |           |           |
| ALDRIN                                                                                                                 |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)                                                                                |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ALPHA-CHLORDANE                                                                                                        |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ALPHA ENDOSULFAN                                                                                                       |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)                                                                                  |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| BETA ENDOSULFAN                                                                                                        |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)                                                                                |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| DIELDRIN                                                                                                               |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ENDOSULFAN SULFATE                                                                                                     |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ENDRIN                                                                                                                 |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ENDRIN ALDEHYDE                                                                                                        |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| ENDRIN KETONE                                                                                                          |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| GAMMA BHC (LINDANE)                                                                                                    |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| GAMMA-CHLORDANE                                                                                                        |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| HEPTACHLOR                                                                                                             |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| HEPTACHLOR EPOXIDE                                                                                                     |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| METHOXYCHLOR                                                                                                           |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| P,P'-DDD                                                                                                               |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| P,P'-DDE                                                                                                               |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| P,P'-DDT                                                                                                               |  | --       | --       | --       | --       | --       |           | --        | --        | --        |
| TOXAPHENE                                                                                                              |  | --       | --       | --       | --       | --       |           | --        | --        | --        |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID R7-186-C-Comp R7-187-C-Z1a R7-187-C-Comp R7-188-C-Z1a R7-188-C-Z1 R7-189-C-Comp R7-189-CR |         |           |         |          |          |           |          |        |  |           |  |
|-----------------------------------------------------------------------------------------------------|---------|-----------|---------|----------|----------|-----------|----------|--------|--|-----------|--|
| Sample Date                                                                                         |         | 6/30/2010 |         | 0-0.7    |          | 6/30/2010 |          | 0-0.95 |  | 6/30/2010 |  |
| Sample Depth Range (ft BGS)                                                                         |         | 0-0.7     |         | 0-0.5    |          | 6/30/2010 |          | 0-0.5  |  | 6/30/2010 |  |
| Analyte                                                                                             |         | 0-1.2     |         |          |          |           |          |        |  |           |  |
| Metals by C200.7 (mg/kg)                                                                            |         |           |         |          |          |           |          |        |  |           |  |
| ALUMINUM                                                                                            | 7300    | 13000 J   | 9770 J  | 11000 J  | 7820     | 10400 J   | 10100    |        |  |           |  |
| ANTIMONY                                                                                            | 0.73 UJ | 1.3 UJ    | 1 UJ    | 1.1 UJ   | 0.63 UJ  | 0.8 UJ    | 0.7 UJ   |        |  |           |  |
| ARSENIC                                                                                             | 3.2 J   | 4.6 J     | 4.5 J   | 3.8 J    | 2.2 J    | 9.1 J     | 6.2 J    |        |  |           |  |
| BARIUM                                                                                              | 322     | 170 J     | 214 J   | 142 J    | 0.21 UJ  | 272 J     | 290      |        |  |           |  |
| BERYLLIUM                                                                                           | 0.22 J  | 0.44 J    | 0.31 J  | 0.41 J   | 0.32 J   | 0.32 J    | 0.33 J   |        |  |           |  |
| CADMIUM                                                                                             | 1.8 J   | 0.068 UJ  | 2.8 J   | 0.057 UJ | 0.032 UJ | 4.6 J     | 4 J      |        |  |           |  |
| CALCIUM                                                                                             | 11300   | 24200 J   | 16800 J | 15600 J  | 3810     | 16800 J   | 16900    |        |  |           |  |
| CHROMIUM                                                                                            | 90.6    | 66.5 J    | 95.7 J  | 44.3 J   | 12.5     | 214 J     | 198      |        |  |           |  |
| COBALT                                                                                              | 0.08 UJ | 0.15 UJ   | 0.11 UJ | 0.12 UJ  | 0.069 U  | 15.2 J    | 14       |        |  |           |  |
| COPPER                                                                                              | 434     | 243 J     | 288 J   | 150 J    | 18.3     | 656 J     | 682      |        |  |           |  |
| IRON                                                                                                | 12300   | 22500 J   | 18600 J | 18800 J  | 14800    | 18700 J   | 17900    |        |  |           |  |
| LEAD                                                                                                | 585     | 275 J     | 338 J   | 179 J    | 11.4     | 810 J     | 714      |        |  |           |  |
| MAGNESIUM                                                                                           | 4880    | 10200 J   | 6910 J  | 6920 J   | 2930     | 7340 J    | 7300     |        |  |           |  |
| MANGANESE                                                                                           | 223     | 456 J     | 340 J   | 389 J    | 215      | 318 J     | 316      |        |  |           |  |
| NICKEL                                                                                              | 53.6    | 47.2 J    | 114 J   | 30.7 J   | 14.6     | 206 J     | 168      |        |  |           |  |
| POTASSIUM                                                                                           | 9.9 UJ  | 1910 J    | 1360 J  | 1510 J   | 1310     | 1070 J    | 1070     |        |  |           |  |
| SELENIUM                                                                                            | 1.2 J   | 2 J       | 2 J     | 1.9 J    | 1 J      | 1.7 J     | 1.5 J    |        |  |           |  |
| SILVER                                                                                              | 8       | 1.4 UJ    | 1.4 J   | 1.2 U    | 0.66 U   | 2.2 J     | 2.9      |        |  |           |  |
| SODIUM                                                                                              | 172 J   | 316 J     | 342 J   | 255 J    | 1020     | 187 J     | 177 J    |        |  |           |  |
| THALLIUM                                                                                            | 0.56 U  | 1 UJ      | 0.8 U   | 0.85 U   | 0.48 U   | 0.62 U    | 0.54 U   |        |  |           |  |
| VANADIUM                                                                                            | 11.9    | 21.6 J    | 19.9 J  | 18.6 J   | 15.1     | 25.3 J    | 23.7     |        |  |           |  |
| ZINC                                                                                                | 535     | 598 J     | 902 J   | 377 J    | 76.3     | 2090 J    | 1850     |        |  |           |  |
| Mercury by CV (mg/kg)                                                                               |         |           |         |          |          |           |          |        |  |           |  |
| MERCURY                                                                                             | 0.68    | 0.81 J    | 0.84 J  | 1.3 J    | 0.064 UJ | 1.3 J     | 1.1      |        |  |           |  |
| PCBS by MC ARO (mg/kg)                                                                              |         |           |         |          |          |           |          |        |  |           |  |
| PCB-1016 (AROCOR 1016)                                                                              | 0.077 U | 0.099 U   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCB-1221 (AROCOR 1221)                                                                              | 0.077 U | 0.099 U   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCB-1232 (AROCOR 1232)                                                                              | 0.077 U | 0.099 U   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCB-1242 (AROCOR 1242)                                                                              | 0.077 U | 0.099 U   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCB-1248 (AROCOR 1248)                                                                              | 0.41 NJ | 0.31      | 41 J    | 0.087 U  | 0.056 U  | 0.12 NJ   | 0.097 NJ |        |  |           |  |
| PCB-1254 (AROCOR 1254)                                                                              | 0.33    | 0.24      | 23      | 0.087 U  | 0.056 U  | 0.12 J    | 0.079    |        |  |           |  |
| PCB-1260 (AROCOR 1260)                                                                              | 0.11 J  | 0.12 NJ   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCB-1262 (AROCOR 1262)                                                                              | 0.077 U | 0.099 U   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCB-1268 (AROCOR 1268)                                                                              | 0.077 U | 0.099 U   | 0.08 U  | 0.087 U  | 0.056 U  | 0.069 U   | 0.064 U  |        |  |           |  |
| PCBs (total)                                                                                        | 0.85 J  | 0.67 NJ   | 64 J    | 0.087 U  | 0.056 U  | 0.24 J    | 0.18 NJ  |        |  |           |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                            |         |           |         |          |          |           |          |        |  |           |  |
| 2-METHYLNAPHTHALENE                                                                                 | 0.1     | 0.012     | 0.02    | 0.0083   | 0.005 U  | 0.062     | 0.065    |        |  |           |  |
| ACENAPHTHENE                                                                                        | 0.35    | 0.024     | 0.067   | 0.016    | 0.005 U  | 0.12      | 0.22     |        |  |           |  |
| ACENAPHTHYLENE                                                                                      | 0.45    | 0.074     | 0.093   | 0.043    | 0.005    | 0.19      | 0.21     |        |  |           |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID R7-186-C-Comp |           | R7-187-C-Z1a |        | R7-187-C-Comp |         | R7-188-C-Z1a |        | R7-188-C-Z1 |         | R7-189-C-Comp |       | R7-189-CR |       |
|-----------------------------------------|-------------------------|-----------|--------------|--------|---------------|---------|--------------|--------|-------------|---------|---------------|-------|-----------|-------|
|                                         | Sample Date             | 6/30/2010 | 0-0.7        | 0-0.5  | 6/30/2010     | 0-0.95  | 6/30/2010    | 0-0.5  | 6/30/2010   | 0.4-1.1 | 6/30/2010     | 0-1.2 | 6/30/2010 | 0-1.2 |
| Sample Depth Range (ft BGS)             |                         |           |              |        |               |         |              |        |             |         |               |       |           |       |
| ANTHRACENE                              |                         | 0.41 J    | 0.13         | 0.32 J | 0.061         | 0.086   | 0.59 J       | 0.42 J |             |         |               |       |           |       |
| BENZO(A)ANTHRACENE                      |                         | 1.7       | 0.33 J       | 0.76   | 0.18 J        | 0.027 J | 1.8 J        | 1.5    |             |         |               |       |           |       |
| BENZO(A)PYRENE                          |                         | 1.5       | 0.23 J       | 0.81   | 0.14 J        | 0.015 J | 1.7 J        | 1.4    |             |         |               |       |           |       |
| BENZO(B)FLUORANTHENE                    |                         | 1.1       | 0.38 J       | 0.49   | 0.18          | 0.017 J | 0.99 J       | 0.92   |             |         |               |       |           |       |
| BENZO(K)FLUORANTHENE                    |                         | 1.1 J     | 0.28         | 0.66 J | 0.13          | 0.011   | 1.5 J        | 1.4 J  |             |         |               |       |           |       |
| CHRYSENE                                |                         | 1.9       | 0.47         | 1      | 0.27          | 0.031 U | 1.8          | 1.7    |             |         |               |       |           |       |
| DIBENZ(A,H)ANTHRACENE                   |                         | 0.32 J    | 0.031        | 0.15 J | 0.017         | 0.005   | 0.13 J       | 0.12 J |             |         |               |       |           |       |
| FLUORANTHENE                            |                         | 2.5       | 0.97         | 1.2    | 0.5           | 0.051 U | 2.9          | 2.6    |             |         |               |       |           |       |
| FLUORENE                                |                         | 0.43      | 0.043        | 0.08   | 0.022         | 0.005 U | 0.13         | 0.24   |             |         |               |       |           |       |
| INDENO(1,2,3-C,D)PYRENE                 |                         | 0.6 J     | 0.074        | 0.18   | 0.035 J       | 0.005 U | 0.19 U       | 0.24 U |             |         |               |       |           |       |
| NAPHTHALENE                             |                         | 0.064     | 0.012        | 0.02   | 0.0094        | 0.005   | 0.069        | 0.064  |             |         |               |       |           |       |
| PENTACHLOROPHENOL                       |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| PHENANTHRENE                            |                         | 1.5 J     | 0.38         | 0.57 J | 0.2           | 0.02    | 1.6 J        | 1.4 J  |             |         |               |       |           |       |
| PYRENE                                  |                         | 2.8 J     | 0.62 J       | 1.3 J  | 0.33 J        | 0.042 J | 2.8 J        | 2.5 J  |             |         |               |       |           |       |
| PAHs (total)                            |                         | 17        | 4.1          | 7.9    | 2.2           | 0.22    | 17           | 15     |             |         |               |       |           |       |
| Pesticides by MC PEST (mg/kg)           |                         |           |              |        |               |         |              |        |             |         |               |       |           |       |
| ALDRIN                                  |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ALPHA-CHLORDANE                         |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ALPHA ENDOSULFAN                        |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| BETA ENDOSULFAN                         |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| DIELDRIN                                |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ENDOSULFAN SULFATE                      |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ENDRIN                                  |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ENDRIN ALDEHYDE                         |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| ENDRIN KETONE                           |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| GAMMA BHC (LINDANE)                     |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| GAMMA-CHLORDANE                         |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| HEPTACHLOR                              |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| HEPTACHLOR EPOXIDE                      |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| METHOXYCHLOR                            |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| P,P'-DDD                                |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| P,P'-DDE                                |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| P,P'-DDT                                |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |
| TOXAPHENE                               |                         | --        | --           | --     | --            | --      | --           | --     |             |         |               |       |           |       |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID                                |         | R7-189-C-Z1a |         | R7-190-C-Comp |          | R7-191-C-Comp |          | R7-191-C-Z1a |  | R7-192-C-Z1a |  | R7-193-C-Comp |  | R7-193-C-Z1a |  | R7-194-C-Comp |  |
|------------------------------------------|---------|--------------|---------|---------------|----------|---------------|----------|--------------|--|--------------|--|---------------|--|--------------|--|---------------|--|
| Sample Date                              |         | 6/30/2010    |         | 6/30/2010     |          | 6/29/2010     |          | 6/29/2010    |  | 6/29/2010    |  | 6/29/2010     |  | 6/29/2010    |  | 6/29/2010     |  |
| Sample Depth Range (ft BGS)              |         | 0-0.5        |         | 0-0.7         |          | 0-0.9         |          | 0-0.5        |  | 0-0.3        |  | 0-0.8         |  | 0-0.5        |  | 0-0.6         |  |
| Analyte                                  |         |              |         |               |          |               |          |              |  |              |  |               |  |              |  |               |  |
| Metals by C200.7 (mg/kg)                 |         |              |         |               |          |               |          |              |  |              |  |               |  |              |  |               |  |
| ALUMINUM                                 | 10800 J | 9120         | 11000 J | 11600 J       | 9630 J   | 9390          | 8430 J   | 11300 J      |  |              |  |               |  |              |  |               |  |
| ANTIMONY                                 | 1 UJ    | 0.65 UJ      | 1 UJ    | 1.3 UJ        | 0.92 UJ  | 0.77 UJ       | 0.9 UJ   | 0.82 UJ      |  |              |  |               |  |              |  |               |  |
| ARSENIC                                  | 4.4 J   | 5.7 J        | 5.1 J   | 4.1 J         | 4.5 J    | 10.2 J        | 6.1 J    | 3.6 J        |  |              |  |               |  |              |  |               |  |
| BARIUM                                   | 278 J   | 298          | 269 J   | 185 J         | 228 J    | 463           | 383 J    | 312 J        |  |              |  |               |  |              |  |               |  |
| BERYLLIUM                                | 0.35 J  | 0.46 J       | 0.11 UJ | 0.13 UJ       | 0.095 UJ | 0.079 UJ      | 0.093 UJ | 0.084 UJ     |  |              |  |               |  |              |  |               |  |
| CADMIUM                                  | 1.7 J   | 1.6 J        | 2.2 J   | 0.067 UJ      | 1.7 J    | 1.2 J         | 2.8 J    | 0.042 UJ     |  |              |  |               |  |              |  |               |  |
| CALCIUM                                  | 18700 J | 12200        | 22000 J | 23600 J       | 22100 J  | 14200         | 15900 J  | 23100 J      |  |              |  |               |  |              |  |               |  |
| CHROMIUM                                 | 88.9 J  | 85           | 119 J   | 80.4 J        | 110 J    | 81.8 J        | 95.2 J   | 93.6 J       |  |              |  |               |  |              |  |               |  |
| COBALT                                   | 0.11 UJ | 10.9         | 10.3 J  | 9.6 J         | 9 J      | 9.1 J         | 7.6 J    | 6.9 J        |  |              |  |               |  |              |  |               |  |
| COPPER                                   | 323 J   | 343          | 414 J   | 314 J         | 427 J    | 524           | 409 J    | 487 J        |  |              |  |               |  |              |  |               |  |
| IRON                                     | 18700 J | 20000        | 18600 J | 19300 J       | 17700 J  | 20800         | 16200 J  | 14600 J      |  |              |  |               |  |              |  |               |  |
| LEAD                                     | 382 J   | 320          | 475 J   | 313 J         | 436 J    | 652           | 519 J    | 358 J        |  |              |  |               |  |              |  |               |  |
| MAGNESIUM                                | 8430 J  | 5590         | 9090 J  | 9550 J        | 9130 J   | 6760          | 7090 J   | 6200 J       |  |              |  |               |  |              |  |               |  |
| MANGANESE                                | 498 J   | 364          | 315 J   | 355 J         | 293 J    | 267           | 286 J    | 365 J        |  |              |  |               |  |              |  |               |  |
| NICKEL                                   | 54.3 J  | 60.7         | 63.7 J  | 45.9 J        | 65.5 J   | 83.3          | 55.2 J   | 51.2 J       |  |              |  |               |  |              |  |               |  |
| POTASSIUM                                | 1450 J  | 1030         | 1520 J  | 1770 J        | 1290 J   | 1270          | 12.3 UJ  | 11.1 UJ      |  |              |  |               |  |              |  |               |  |
| SELENIUM                                 | 2 J     | 1.1 J        | 1.3 J   | 1.6 J         | 1 J      | 1.3 J         | 1.2 J    | 0.71 U       |  |              |  |               |  |              |  |               |  |
| SILVER                                   | 1.2 J   | 0.7 J        | 1.8 J   | 2.5 J         | 1.9 J    | 1.3 J         | 1.2 J    | 1.8 J        |  |              |  |               |  |              |  |               |  |
| SODIUM                                   | 245 J   | 335 J        | 7.6 UJ  | 9.7 UJ        | 6.9 UJ   | 5.7 UJ        | 6.7 UJ   | 6.1 UJ       |  |              |  |               |  |              |  |               |  |
| THALLIUM                                 | 0.79 U  | 0.5 U        | 0.79 U  | 1 U           | 0.71 U   | 0.59 U        | 0.7 U    | 0.63 U       |  |              |  |               |  |              |  |               |  |
| VANADIUM                                 | 19.5 J  | 16.3         | 19.4 J  | 19 J          | 17.3 J   | 16.9          | 15.3 J   | 13.1 J       |  |              |  |               |  |              |  |               |  |
| ZINC                                     | 649 J   | 664          | 782 J   | 625 J         | 691 J    | 786           | 666 J    | 498 J        |  |              |  |               |  |              |  |               |  |
| Mercury by CV (mg/kg)                    |         |              |         |               |          |               |          |              |  |              |  |               |  |              |  |               |  |
| MERCURY                                  | 1.9 J   | 0.64         | 1.1 J   | 2.1 J         | 1.2 J    | 2.9           | 5.5 J    | 0.77 J       |  |              |  |               |  |              |  |               |  |
| PCBS by MC ARO (mg/kg)                   |         |              |         |               |          |               |          |              |  |              |  |               |  |              |  |               |  |
| PCB-1016 (AROCOR 1016)                   | 0.082 U | 0.058 U      | 0.064 U | 0.12 U        | 0.074 U  | 0.062 U       | 0.073 U  | 0.089 U      |  |              |  |               |  |              |  |               |  |
| PCB-1221 (AROCOR 1221)                   | 0.082 U | 0.058 U      | 0.064 U | 0.12 U        | 0.074 U  | 0.062 U       | 0.073 U  | 0.089 U      |  |              |  |               |  |              |  |               |  |
| PCB-1232 (AROCOR 1232)                   | 0.082 U | 0.058 U      | 0.064 U | 0.12 U        | 0.074 U  | 0.062 U       | 0.073 U  | 0.089 U      |  |              |  |               |  |              |  |               |  |
| PCB-1242 (AROCOR 1242)                   | 0.082 U | 0.058 U      | 0.064 U | 0.12 U        | 0.074 U  | 0.062 U       | 0.073 U  | 0.089 U      |  |              |  |               |  |              |  |               |  |
| PCB-1248 (AROCOR 1248)                   | 0.082 U | 0.17 NJ      | 0.47 NJ | 0.64 J        | 0.17     | 0.076         | 0.57 J   | 23           |  |              |  |               |  |              |  |               |  |
| PCB-1254 (AROCOR 1254)                   | 0.082 U | 0.39 J       | 0.34    | 0.4 J         | 0.1      | 0.084 J       | 0.5 J    | 10           |  |              |  |               |  |              |  |               |  |
| PCB-1260 (AROCOR 1260)                   | 0.082 U | 0.29         | 0.13 J  | 0.12 U        | 0.074 U  | 0.024 J       | 0.26 J   | 2.4 NJ       |  |              |  |               |  |              |  |               |  |
| PCB-1262 (AROCOR 1262)                   | 0.082 U | 0.058 U      | 0.064 U | 0.12 U        | 0.074 U  | 0.062 U       | 0.073 U  | 0.089 U      |  |              |  |               |  |              |  |               |  |
| PCB-1268 (AROCOR 1268)                   | 0.082 U | 0.058 U      | 0.064 U | 0.12 U        | 0.074 U  | 0.062 U       | 0.073 U  | 0.089 U      |  |              |  |               |  |              |  |               |  |
| PCBs (total)                             | 0.082 U | 0.85 J       | 0.94 J  | 1 J           | 0.27     | 0.18 J        | 1.3 J    | 35 NJ        |  |              |  |               |  |              |  |               |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |         |              |         |               |          |               |          |              |  |              |  |               |  |              |  |               |  |
| 2-METHYLNAPHTHALENE                      | 0.032   | 0.041        | 0.028   | 0.044         | 0.056    | 0.18          | 0.075    | 0.29         |  |              |  |               |  |              |  |               |  |
| ACENAPHTHENE                             | 0.11    | 0.1          | 0.074   | 0.11          | 0.12     | 0.92          | 0.25     | 1.1          |  |              |  |               |  |              |  |               |  |
| ACENAPHTHYLENE                           | 0.26 J  | 0.17         | 0.1     | 0.1           | 0.14     | 0.1           | 0.23     | 0.31 J       |  |              |  |               |  |              |  |               |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID R7-189-C-Z1a |           | R7-190-C-Comp |        | R7-191-C-Comp |        | R7-191-C-Z1a |       | R7-192-C-Z1a |       | R7-193-C-Comp |       | R7-193-C-Z1a |        | R7-194-C-Comp |       |
|-----------------------------------------|------------------------|-----------|---------------|--------|---------------|--------|--------------|-------|--------------|-------|---------------|-------|--------------|--------|---------------|-------|
|                                         | Sample Date            | 6/30/2010 | 0-0.5         | 0-0.7  | 6/29/2010     | 0-0.9  | 6/29/2010    | 0-0.5 | 6/29/2010    | 0-0.3 | 6/29/2010     | 0-0.8 | 6/29/2010    | 0-0.5  | 6/29/2010     | 0-0.6 |
| Sample Depth Range (ft BGS)             |                        |           |               |        |               |        |              |       |              |       |               |       |              |        |               |       |
| ANTHRACENE                              |                        | 0.18 J    | 0.52          | 0.3 J  | 0.63          | 0.45 J | 4.4 J        | 1.7   | 0.45 J       | 4.4 J | 4.4 J         | 4.4 J | 1.7          | 0.45 J | 4.4 J         | 1.7   |
| BENZO(A)ANTHRACENE                      |                        | 0.94      | 1.5           | 0.89   | 4.8           | 1.2    | 8.7 J        | 4.2   | 1.2          | 8.7 J | 8.7 J         | 8.7 J | 4.2          | 1.2    | 8.7 J         | 4.2   |
| BENZO(A)PYRENE                          |                        | 0.91      | 0.3           | 0.86   | 0.57          | 1.2    | 7.7 J        | 0.69  | 1.2          | 7.7 J | 7.7 J         | 7.7 J | 0.69         | 1.2    | 7.7 J         | 0.69  |
| BENZO(B)FLUORANTHENE                    |                        | 0.69      | 0.23          | 0.41   | 0.5           | 0.82   | 5.5          | 0.45  | 0.82         | 5.5   | 5.5           | 5.5   | 0.45         | 0.82   | 5.5           | 0.45  |
| BENZO(K)FLUORANTHENE                    |                        | 0.8 J     | 0.29          | 0.62 J | 0.71 J        | 0.98 J | 4.1 J        | 3.6   | 0.98 J       | 4.1 J | 4.1 J         | 4.1 J | 3.6          | 0.98 J | 4.1 J         | 3.6   |
| CHRYSENE                                |                        | 1.2       | 2.2           | 1.1    | 2.1           | 1.5    | 10           | 5.8   | 1.5          | 10    | 10            | 10    | 5.8          | 1.5    | 10            | 5.8   |
| DIBENZ(A,H)ANTHRACENE                   |                        | 0.16 J    | 0.13          | 0.1 J  | 0.25          | 0.38 J | 1.4 J        | 0.3   | 0.38 J       | 1.4 J | 1.4 J         | 1.4 J | 0.3          | 0.38 J | 1.4 J         | 0.3   |
| FLUORANTHENE                            |                        | 1.6       | 3.8           | 1.6    | 4.5           | 2      | 9.7          | 4.9   | 2            | 9.7   | 9.7           | 9.7   | 4.9          | 2      | 9.7           | 4.9   |
| FLUORENE                                |                        | 0.16      | 0.14          | 0.091  | 0.2           | 0.14   | 1.3          | 0.3   | 0.2          | 0.14  | 1.3           | 1.3   | 0.3          | 0.2    | 0.14          | 1.3   |
| INDENO(1,2,3-C,D)PYRENE                 |                        | 0.26      | 0.19          | 0.5    | 0.41          | 0.66   | 3.4          | 0.44  | 0.66         | 3.4   | 3.4           | 3.4   | 0.44         | 0.66   | 3.4           | 0.44  |
| NAPHTHALENE                             |                        | 0.031     | 0.046         | 0.026  | 0.053         | 0.047  | 0.059        | 0.066 | 0.047        | 0.059 | 0.059         | 0.059 | 0.066        | 0.047  | 0.059         | 0.066 |
| PENTACHLOROPHENOL                       |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| PHENANTHRENE                            |                        | 0.72 J    | 1.8           | 0.75 J | 2.6           | 1 J    | 15 J         | 4.3   | 1 J          | 15 J  | 15 J          | 15 J  | 4.3          | 1 J    | 15 J          | 4.3   |
| PYRENE                                  |                        | 1.5 J     | 2.4 J         | 1.4 J  | 4.1 J         | 2.2 J  | 17 J         | 4.1 J | 2.2 J        | 17 J  | 17 J          | 17 J  | 4.1 J        | 2.2 J  | 17 J          | 4.1 J |
| PAHs (total)                            |                        | 9.8       | 14            | 9.4    | 22            | 14     | 93           | 32    | 14           | 93    | 93            | 93    | 32           | 14     | 93            | 32    |
| Pesticides by MC PEST (mg/kg)           |                        |           |               |        |               |        |              |       |              |       |               |       |              |        |               |       |
| ALDRIN                                  |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ALPHA-CHLORDANE                         |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ALPHA ENDOSULFAN                        |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| BETA ENDOSULFAN                         |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| DIELDRIN                                |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ENDOSULFAN SULFATE                      |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ENDRIN                                  |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ENDRIN ALDEHYDE                         |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| ENDRIN KETONE                           |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| GAMMA BHC (LINDANE)                     |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| GAMMA-CHLORDANE                         |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| HEPTACHLOR                              |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| HEPTACHLOR EPOXIDE                      |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| METHOXYCHLOR                            |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| P,P'-DDD                                |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| P,P'-DDE                                |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| P,P'-DDT                                |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |
| TOXAPHENE                               |                        | --        | --            | --     | --            | --     | --           | --    | --           | --    | --            | --    | --           | --     | --            | --    |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID                                |          | R7-195-C-Comp |          | R7-196-C-Comp |          | R7-196-C-Z1a |         | R7-197-C-Comp |  | R7-197-CR |  | R7-197-C-Z1a |  | R7-198-C-Comp |  | R7-198-C-Z1a |  |
|------------------------------------------|----------|---------------|----------|---------------|----------|--------------|---------|---------------|--|-----------|--|--------------|--|---------------|--|--------------|--|
| Sample Date                              |          | 6/29/2010     |          | 6/29/2010     |          | 6/29/2010    |         | 6/28/2010     |  | 6/28/2010 |  | 6/28/2010    |  | 6/28/2010     |  | 6/28/2010    |  |
| Sample Depth Range (ft BGS)              |          | 0-0           |          | 0-1.3         |          | 0-0.5        |         | 0-1.2         |  | 0-1.2     |  | 0-0.5        |  | 0-0.9         |  | 0-0.5        |  |
| Analyte                                  |          |               |          |               |          |              |         |               |  |           |  |              |  |               |  |              |  |
| Metals by C200.7 (mg/kg)                 |          |               |          |               |          |              |         |               |  |           |  |              |  |               |  |              |  |
| ALUMINUM                                 | 8660     | 11700 J       | 10500 J  | 9700          | 9570     | 7700 J       | 9750    | 7830          |  |           |  |              |  |               |  |              |  |
| ANTIMONY                                 | 21.4 J   | 0.83 UJ       | 0.96 UJ  | 0.75 UJ       | 0.71 UJ  | 0.83 UR      | 0.67 UR | 0.66 UR       |  |           |  |              |  |               |  |              |  |
| ARSENIC                                  | 4 J      | 14.7 J        | 5.4 J    | 10.2 J        | 8.1 J    | 6.4 J        | 6.4 J   | 4.6 J         |  |           |  |              |  |               |  |              |  |
| BARIUM                                   | 544      | 364 J         | 203 J    | 321           | 279      | 203 J        | 399     | 353           |  |           |  |              |  |               |  |              |  |
| BERYLLIUM                                | 0.074 UJ | 0.085 UJ      | 0.098 UJ | 0.077 UJ      | 0.073 UJ | 0.25 J       | 0.31 J  | 0.27 J        |  |           |  |              |  |               |  |              |  |
| CADMIUM                                  | 1.4 J    | 9.9 J         | 5.6 J    | 3.9 J         | 4 J      | 2.3 J        | 1.9 J   | 1.8 J         |  |           |  |              |  |               |  |              |  |
| CALCIUM                                  | 19300    | 19800 J       | 26400 J  | 21300         | 21500    | 24000 J      | 21600   | 22000         |  |           |  |              |  |               |  |              |  |
| CHROMIUM                                 | 142 J    | 374 J         | 172 J    | 190 J         | 172 J    | 104 J        | 117     | 99.6608       |  |           |  |              |  |               |  |              |  |
| COBALT                                   | 7.7 J    | 15.7 J        | 9.4 J    | 13.1          | 13.9     | 9 J          | 9.7     | 7.3 J         |  |           |  |              |  |               |  |              |  |
| COPPER                                   | 677      | 839 J         | 506 J    | 829           | 626      | 468 J        | 510     | 466           |  |           |  |              |  |               |  |              |  |
| IRON                                     | 14700    | 22800 J       | 17500 J  | 17900         | 17200    | 15100 J      | 16500   | 15000         |  |           |  |              |  |               |  |              |  |
| LEAD                                     | 471      | 1330 J        | 652 J    | 932           | 803      | 522 J        | 534     | 423           |  |           |  |              |  |               |  |              |  |
| MAGNESIUM                                | 7140     | 8220 J        | 9080 J   | 8470          | 8450     | 9460 J       | 8100    | 8250          |  |           |  |              |  |               |  |              |  |
| MANGANESE                                | 323      | 311 J         | 351 J    | 285           | 282      | 337 J        | 305     | 336           |  |           |  |              |  |               |  |              |  |
| NICKEL                                   | 65.9     | 151 J         | 105 J    | 154           | 191      | 71.9 J       | 69.3    | 79.5          |  |           |  |              |  |               |  |              |  |
| POTASSIUM                                | 932      | 1320 J        | 1310 J   | 1020          | 964 J    | 901 J        | 1050    | 835 J         |  |           |  |              |  |               |  |              |  |
| SELENIUM                                 | 0.81 J   | 1.4 J         | 1.4 J    | 1.3 J         | 1.1 J    | 2.5 J        | 2.2 J   | 2.1 J         |  |           |  |              |  |               |  |              |  |
| SILVER                                   | 3.4      | 4.2 J         | 4.1 J    | 2.1           | 3.9      | 2.1 J        | 2.4     | 2.2           |  |           |  |              |  |               |  |              |  |
| SODIUM                                   | 5.4 UJ   | 6.2 UJ        | 7.1 UJ   | 5.6 UJ        | 5.3 UJ   | 167 J        | 186 J   | 138 J         |  |           |  |              |  |               |  |              |  |
| THALLIUM                                 | 0.55 U   | 0.64 U        | 0.74 U   | 0.58 U        | 0.55 U   | 0.64 U       | 0.52 U  | 0.51 U        |  |           |  |              |  |               |  |              |  |
| VANADIUM                                 | 15.1     | 36.7 J        | 23.6 J   | 23            | 21.5     | 14 J         | 14.9    | 12.5          |  |           |  |              |  |               |  |              |  |
| ZINC                                     | 613      | 2340 J        | 1200 J   | 1710          | 1540     | 738 J        | 802     | 595           |  |           |  |              |  |               |  |              |  |
| Mercury by CV (mg/kg)                    |          |               |          |               |          |              |         |               |  |           |  |              |  |               |  |              |  |
| MERCURY                                  | 1.3      | 2.1 J         | 1.7 J    | 1.9 J         | 0.91 J   | 4.5 J        | 0.84 J  | 0.81 J        |  |           |  |              |  |               |  |              |  |
| PCBS by MC ARO (mg/kg)                   |          |               |          |               |          |              |         |               |  |           |  |              |  |               |  |              |  |
| PCB-1016 (AROCOR 1016)                   | 0.057 U  | 0.061 U       | 0.072 U  | 0.062 U       | 0.075 U  | 0.061 U      | 0.055 U | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1221 (AROCOR 1221)                   | 0.057 U  | 0.061 U       | 0.072 U  | 0.062 U       | 0.075 U  | 0.061 U      | 0.055 U | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1232 (AROCOR 1232)                   | 0.057 U  | 0.061 U       | 0.072 U  | 0.062 U       | 0.075 U  | 0.061 U      | 0.055 U | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1242 (AROCOR 1242)                   | 0.057 U  | 0.061 U       | 0.072 U  | 0.062 U       | 0.075 U  | 0.061 U      | 0.055 U | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1248 (AROCOR 1248)                   | 2 NJ     | 0.31          | 0.47 J   | 0.57 NJ       | 0.075 U  | 0.43 NJ      | 0.8 J   | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1254 (AROCOR 1254)                   | 2.2      | 0.2           | 0.26 J   | 0.73 J        | 0.42 J   | 0.68         | 1.3     | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1260 (AROCOR 1260)                   | 0.54 NJ  | 0.084 NJ      | 0.072 U  | 0.46 J        | 0.11 J   | 0.2 J        | 0.45 J  | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1262 (AROCOR 1262)                   | 0.057 U  | 0.061 U       | 0.072 U  | 0.062 U       | 0.075 U  | 0.061 U      | 0.055 U | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCB-1268 (AROCOR 1268)                   | 0.057 U  | 0.061 U       | 0.072 U  | 0.062 U       | 0.075 U  | 0.061 U      | 0.055 U | 0.06 U        |  |           |  |              |  |               |  |              |  |
| PCBs (total)                             | 4.7 NJ   | 0.59 NJ       | 0.73 J   | 1.8 J         | 0.53 J   | 1.3 J        | 2.6 J   | 0.06 U        |  |           |  |              |  |               |  |              |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |          |               |          |               |          |              |         |               |  |           |  |              |  |               |  |              |  |
| 2-METHYLNAPHTHALENE                      | 2.1      | 0.08          | 0.053    | 0.055         | 0.08     | 0.081        | 0.073   | 0.055         |  |           |  |              |  |               |  |              |  |
| ACENAPHTHENE                             | 9        | 0.3           | 0.16     | 0.25          | 0.29     | 0.32         | 0.23    | 0.18          |  |           |  |              |  |               |  |              |  |
| ACENAPHTHYI FNE                          | 0.34     | 0.2           | 0.2 J    | 0.19          | 0.21     | 0.33         | 0.1     | 0.13          |  |           |  |              |  |               |  |              |  |



Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID R7-195-C-Comp |                             | R7-196-C-Comp |       | R7-196-C-Z1a |       | R7-197-C-Comp |       | R7-197-C-Z1a |       | R7-198-C-Comp |       | R7-198-C-Z1a |       |
|-----------------------------------------|-------------------------|-----------------------------|---------------|-------|--------------|-------|---------------|-------|--------------|-------|---------------|-------|--------------|-------|
|                                         | Sample Date             | Sample Depth Range (ft BGS) | 6/29/2010     | 0-1.3 | 6/29/2010    | 0-0.5 | 6/28/2010     | 0-1.2 | 6/28/2010    | 0-0.5 | 6/28/2010     | 0-0.9 | 6/28/2010    | 0-0.5 |
| ANTHRACENE                              |                         | 7.4 J                       | 0.53          |       | 0.31         |       | 0.45          | 0.55  | 0.79         |       | 0.52          |       | 0.38         |       |
| BENZO(A)ANTHRACENE                      |                         | 14 J                        | 2.4           |       | 1.3          |       | 2.7           | 2.5   | 3.2          |       | 1.7           |       | 1.3          |       |
| BENZO(A)PYRENE                          |                         | 12                          | 2.1           |       | 1.3          |       | 2.4           | 2.3   | 3.1          |       | 1.5           |       | 1.2          |       |
| BENZO(B)FLUORANTHENE                    |                         | 8.7 J                       | 1.3           |       | 1.1          |       | 1.7           | 2     | 1.9          |       | 0.91          |       | 0.94         |       |
| BENZO(K)FLUORANTHENE                    |                         | 12                          | 1.3           |       | 0.92         |       | 1.6           | 1.9   | 2.4          |       | 1.2           |       | 0.94         |       |
| CHRYSENE                                |                         | 16 J                        | 2.8           |       | 1.6 J        |       | 2.9           | 2.7   | 3.9          |       | 1.9           |       | 1.5          |       |
| DIBENZ(A,H)ANTHRACENE                   |                         | 2.5                         | 0.56          |       | 0.25         |       | 0.27          | 0.26  | 0.53 J       |       | 0.39          |       | 0.32         |       |
| FLUORANTHENE                            |                         | 32                          | 3.2           |       | 2.6          |       | 3.9           | 3.9   | 5            |       | 2.9           |       | 2.3          |       |
| FLUORENE                                |                         | 6.4 J                       | 0.17          |       | 0.19         |       | 0.27          | 0.3   | 0.35         |       | 0.24          |       | 0.2          |       |
| INDENO(1,2,3-C,D)PYRENE                 |                         | 4.3                         | 0.84          |       | 0.73         |       | 1.4           | 0.77  | 1.3          |       | 0.83          |       | 0.74         |       |
| NAPHTHALENE                             |                         | 4.3                         | 0.074         |       | 0.063        |       | 0.064         | 0.097 | 0.085        |       | 0.075         |       | 0.058        |       |
| PENTACHLOROPHENOL                       |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| PHENANTHRENE                            |                         | 37                          | 0.94          |       | 1.3          |       | 2             | 2.1   | 3.1 J        |       | 1.9           |       | 1.5          |       |
| PYRENE                                  |                         | 29 J                        | 4.1           |       | 2.2 J        |       | 4.7 J         | 4.4   | 4.6 J        |       | 3             |       | 2.3 J        |       |
| PAHs (total)                            |                         | 200                         | 22            |       | 15           |       | 26            | 25    | 32           |       | 18            |       | 15           |       |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                         |                             |               |       |              |       |               |       |              |       |               |       |              |       |
| ALDRIN                                  |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ALPHA-CHLORDANE                         |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ALPHA ENDOSULFAN                        |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| BETA ENDOSULFAN                         |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| DIELDRIN                                |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ENDOSULFAN SULFATE                      |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ENDRIN                                  |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ENDRIN ALDEHYDE                         |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| ENDRIN KETONE                           |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| GAMMA BHC (LINDANE)                     |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| GAMMA-CHLORDANE                         |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| HEPTACHLOR                              |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| HEPTACHLOR EPOXIDE                      |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| METHOXYCHLOR                            |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| P,P'-DDD                                |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| P,P'-DDE                                |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| P,P'-DDT                                |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |
| TOXAPHENE                               |                         | --                          | --            |       | --           |       | --            | --    | --           |       | --            |       | --           |       |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID R7-199-C-Comp R7-199-C-Z1a R7-200-C-Comp R7-200-C-Z1a R7-201-T-Comp R7-201-T-Z1a R7-202-T-Comp |  |           |  |           |  |           |  |           |  |           |  |
|----------------------------------------------------------------------------------------------------------|--|-----------|--|-----------|--|-----------|--|-----------|--|-----------|--|
| Sample Date                                                                                              |  | 6/28/2010 |  | 6/28/2010 |  | 6/28/2010 |  | 6/25/2010 |  | 6/25/2010 |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  | 0-0.5     |  | 0-1.1     |  |
| Sample Depth Range (ft BGS)                                                                              |  | 0-1.5     |  | 0-0.5     |  | 0-3       |  |           |  |           |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                 | Sample ID R7-199-C-Comp |        | Sample Date |         | Sample Depth Range (ft BGS) |          | R7-199-C-Z1a |  | R7-200-C-Comp |  | R7-201-T-Comp |  | R7-201-T-Z1a |  | R7-202-T-Comp |  |
|-----------------------------------------|-------------------------|--------|-------------|---------|-----------------------------|----------|--------------|--|---------------|--|---------------|--|--------------|--|---------------|--|
|                                         | 6/28/2010               |        | 6/28/2010   |         | 0-1.5                       |          | 6/28/2010    |  | 6/28/2010     |  | 6/25/2010     |  | 6/25/2010    |  | 6/29/2010     |  |
|                                         | 0-1.5                   |        | 0-0.5       |         | 0-3                         |          | 0-0.5        |  | 0-0.5         |  | 0-1.1         |  | 0-0.5        |  | 0-0.9         |  |
| ANTHRACENE                              | 0.62                    | 0.59 J | 1.6 J       | 0.045   | 0.012                       | 0.007 J  | 0.011        |  |               |  |               |  |              |  |               |  |
| BENZO(A)ANTHRACENE                      | 2.2                     | 1.9    | 3.3         | 0.076   | 0.039                       | 0.011 J  | 0.021 J      |  |               |  |               |  |              |  |               |  |
| BENZO(A)PYRENE                          | 1.9                     | 1.7    | 3.4         | 0.081 J | 0.019                       | 0.007 U  | 0.011 J      |  |               |  |               |  |              |  |               |  |
| BENZO(B)FLUORANTHENE                    | 1.2                     | 1.1    | 1.9         | 0.13    | 0.029                       | 0.007 U  | 0.02 J       |  |               |  |               |  |              |  |               |  |
| BENZO(K)FLUORANTHENE                    | 1.4                     | 1.3 J  | 2.2 J       | 0.07    | 0.018                       | 0.007    | 0.01         |  |               |  |               |  |              |  |               |  |
| CHRYSENE                                | 2.3                     | 2.2    | 3.8         | 0.11    | 0.057 U                     | 0.019 U  | 0.024 U      |  |               |  |               |  |              |  |               |  |
| DIBENZ(A,H)ANTHRACENE                   | 0.2                     | 0.27 J | 0.53 J      | 0.023   | 0.006                       | 0.007    | 0.006        |  |               |  |               |  |              |  |               |  |
| FLUORANTHENE                            | 3.6                     | 3.4    | 5           | 0.18    | 0.042 U                     | 0.031 UJ | 0.053 U      |  |               |  |               |  |              |  |               |  |
| FLUORENE                                | 0.26                    | 0.35   | 0.82        | 0.033   | 0.006                       | 0.007 U  | 0.006 U      |  |               |  |               |  |              |  |               |  |
| INDENO(1,2,3-C,D)PYRENE                 | 0.8                     | 0.99   | 1.3         | 0.035   | 0.0079 U                    | 0.007 U  | 0.006 U      |  |               |  |               |  |              |  |               |  |
| NAPHTHALENE                             | 0.097                   | 0.11   | 0.11        | 0.01    | 0.006                       | 0.007    | 0.006        |  |               |  |               |  |              |  |               |  |
| PENTACHLOROPHENOL                       | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| PHENANTHRENE                            | 2.6                     | 2.2 J  | 4.7 J       | 0.039   | 0.021                       | 0.012    | 0.029        |  |               |  |               |  |              |  |               |  |
| PYRENE                                  | 4                       | 3.3 J  | 6.2 J       | 0.13 J  | 0.033 J                     | 0.022 J  | 0.035 J      |  |               |  |               |  |              |  |               |  |
| PAHs (total)                            | 22                      | 21     | 37          | 1.1     | 0.28                        | 0.1      | 0.21         |  |               |  |               |  |              |  |               |  |
| <b>Pesticides by MC PEST (mg/kg)</b>    |                         |        |             |         |                             |          |              |  |               |  |               |  |              |  |               |  |
| ALDRIN                                  | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ALPHA-CHLORDANE                         | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ALPHA ENDOSULFAN                        | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| BETA ENDOSULFAN                         | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| DIELDRIN                                | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ENDOSULFAN SULFATE                      | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ENDRIN                                  | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ENDRIN ALDEHYDE                         | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| ENDRIN KETONE                           | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| GAMMA BHC (LINDANE)                     | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| GAMMA-CHLORDANE                         | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| HEPTACHLOR                              | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| HEPTACHLOR EPOXIDE                      | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| METHOXYCHLOR                            | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| P,P'-DDD                                | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| P,P'-DDE                                | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| P,P'-DDT                                | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |
| TOXAPHENE                               | --                      | --     | --          | --      | --                          | --       | --           |  |               |  |               |  |              |  |               |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Analyte                                  | Sample ID                   |  | R7-202-T-Z1a |  | R7-203-T-Comp |  | R7-203-T-Z1a |  | R7-204-T-Z1a |  | R7-205-T-Comp |  | R7-205-T-Z1a |  |
|------------------------------------------|-----------------------------|--|--------------|--|---------------|--|--------------|--|--------------|--|---------------|--|--------------|--|
|                                          | Sample Date                 |  | 6/29/2010    |  | 6/29/2010     |  | 6/29/2010    |  | 6/29/2010    |  | 6/29/2010     |  | 6/29/2010    |  |
|                                          | Sample Depth Range (ft BGS) |  | 0-0.5        |  | 0-0.7         |  | 0-0.5        |  | 0-0.3        |  | 0-0.8         |  | 0-0.5        |  |
| Metals by C200.7 (mg/kg)                 |                             |  |              |  |               |  |              |  |              |  |               |  |              |  |
| ALUMINUM                                 | 12200 J                     |  | 15000 J      |  | 11900 J       |  | 8730 J       |  | 8150         |  | 7990          |  |              |  |
| ANTIMONY                                 | 1.2 UJ                      |  | 1.1 UJ       |  | 0.8 UJ        |  | 0.81 UJ      |  | 0.61 UJ      |  | 0.64 UJ       |  |              |  |
| ARSENIC                                  | 3.5 J                       |  | 6.5 J        |  | 6.5 J         |  | 1 J          |  | 5.7 J        |  | 8 J           |  |              |  |
| BARIUM                                   | 121 J                       |  | 78.5 J       |  | 72.9 J        |  | 63.4 J       |  | 46.1         |  | 64.8          |  |              |  |
| BERYLLIUM                                | 0.12 UJ                     |  | 0.11 UJ      |  | 0.082 UJ      |  | 0.4 J        |  | 0.31 J       |  | 0.39 J        |  |              |  |
| CADMIUM                                  | 0.061 UJ                    |  | 1.6 J        |  | 1.3 J         |  | 0.041 UJ     |  | 0.031 UJ     |  | 0.033 UJ      |  |              |  |
| CALCIUM                                  | 7160 J                      |  | 35500 J      |  | 35700 J       |  | 42800 J      |  | 53600        |  | 46900         |  |              |  |
| CHROMIUM                                 | 17.3 J                      |  | 201 J        |  | 149 J         |  | 89.4 J       |  | 85           |  | 77.6          |  |              |  |
| COBALT                                   | 9.9 J                       |  | 7.8 J        |  | 7.4 J         |  | 0.089 UJ     |  | 0.067 UJ     |  | 0.07 UJ       |  |              |  |
| COPPER                                   | 20.6 J                      |  | 292 J        |  | 250 J         |  | 270 J        |  | 117          |  | 179           |  |              |  |
| IRON                                     | 18600 J                     |  | 16400 J      |  | 15400 J       |  | 14200 J      |  | 12500        |  | 15300         |  |              |  |
| LEAD                                     | 18.3 J                      |  | 800 J        |  | 823 J         |  | 679 J        |  | 425          |  | 521           |  |              |  |
| MAGNESIUM                                | 4770 J                      |  | 8920 J       |  | 8500 J        |  | 9710 J       |  | 10500        |  | 10200         |  |              |  |
| MANGANESE                                | 454 J                       |  | 437 J        |  | 838 J         |  | 547 J        |  | 598          |  | 983           |  |              |  |
| NICKEL                                   | 21.4 J                      |  | 40.8 J       |  | 31.9 J        |  | 22.8 J       |  | 18.1         |  | 24.6          |  |              |  |
| POTASSIUM                                | 1880 J                      |  | 2170 J       |  | 1760 J        |  | 1460 J       |  | 1080         |  | 1300          |  |              |  |
| SELENIUM                                 | 1 U                         |  | 0.95 U       |  | 1.1 J         |  | 0.71 UJ      |  | 0.86 J       |  | 0.91 J        |  |              |  |
| SILVER                                   | 1.2 U                       |  | 1.1 U        |  | 0.84 U        |  | 0.85 U       |  | 0.64 U       |  | 0.67 U        |  |              |  |
| SODIUM                                   | 8.8 UJ                      |  | 8.1 UJ       |  | 6 UJ          |  | 408 J        |  | 530 J        |  | 525 J         |  |              |  |
| THALLIUM                                 | 0.91 U                      |  | 0.84 U       |  | 0.62 U        |  | 0.62 U       |  | 0.47 U       |  | 0.49 U        |  |              |  |
| VANADIUM                                 | 20.9 J                      |  | 17.7 J       |  | 15.7 J        |  | 14.4 J       |  | 11.5         |  | 13.8          |  |              |  |
| ZINC                                     | 113 J                       |  | 1600 J       |  | 1490 J        |  | 1150 J       |  | 722          |  | 841           |  |              |  |
| Mercury by CV (mg/kg)                    |                             |  |              |  |               |  |              |  |              |  |               |  |              |  |
| MERCURY                                  | 0.12 U                      |  | 0.22 J       |  | 0.13 J        |  | 0.083 UJ     |  | 0.17         |  | 0.18          |  |              |  |
| PCBS by MC ARO (mg/kg)                   |                             |  |              |  |               |  |              |  |              |  |               |  |              |  |
| PCB-1016 (AROCOR 1016)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.052 U       |  |              |  |
| PCB-1221 (AROCOR 1221)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.052 U       |  |              |  |
| PCB-1232 (AROCOR 1232)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.052 U       |  |              |  |
| PCB-1242 (AROCOR 1242)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.052 U       |  |              |  |
| PCB-1248 (AROCOR 1248)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.063 NJ      |  |              |  |
| PCB-1254 (AROCOR 1254)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.034 J       |  |              |  |
| PCB-1260 (AROCOR 1260)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.012 J       |  |              |  |
| PCB-1262 (AROCOR 1262)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.052 U       |  |              |  |
| PCB-1268 (AROCOR 1268)                   | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.052 U       |  |              |  |
| PCBs (total)                             | 0.11 U                      |  | 0.087 U      |  | 0.08 U        |  | 0.062 U      |  | 0.051 U      |  | 0.11 J        |  |              |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |                             |  |              |  |               |  |              |  |              |  |               |  |              |  |
| 2-METHYLNAPHTHALENE                      | 0.011 U                     |  | 0.43         |  | 0.014         |  | 0.013        |  | 0.0098       |  | 0.017         |  |              |  |
| ACENAPHTHENE                             | 0.011 U                     |  | 2.4          |  | 0.063         |  | 0.047        |  | 0.048        |  | 0.056         |  |              |  |
| ACENAPHTHYLENE                           | 0.011                       |  | 0.16         |  | 0.035         |  | 0.051        |  | 0.047        |  | 0.058         |  |              |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

| Sample ID                               |  | Sample Date |           | Sample Depth Range (ft BGS) |       | R7-202-T-Z1a |       | R7-203-T-Comp |       | R7-203-T-Z1a |       | R7-204-T-Z1a |       | R7-205-T-Comp |       | R7-205-T-Z1a |  |
|-----------------------------------------|--|-------------|-----------|-----------------------------|-------|--------------|-------|---------------|-------|--------------|-------|--------------|-------|---------------|-------|--------------|--|
| Analyte                                 |  | 6/29/2010   | 6/29/2010 | 0-0.5                       | 0-0.5 | 6/29/2010    | 0-0.7 | 6/29/2010     | 0-0.5 | 6/29/2010    | 0-0.3 | 6/29/2010    | 0-0.8 | 6/29/2010     | 0-0.5 |              |  |
| ANTHRACENE                              |  | 0.011       |           | 3.3                         | 0.34  |              |       | 0.24          |       | 0.25         |       | 0.56         |       |               |       |              |  |
| BENZO(A)ANTHRACENE                      |  | 0.2         |           | 6.3                         | 0.7   |              |       | 0.46          |       | 0.37         |       | 0.75         |       |               |       |              |  |
| BENZO(A)PYRENE                          |  | 0.054       |           | 6.2                         | 0.27  |              |       | 0.51          |       | 0.41         |       | 0.14         |       |               |       |              |  |
| BENZO(B)FLUORANTHENE                    |  | 0.07        |           | 5.1                         | 0.22  |              |       | 0.47          |       | 0.36         |       | 0.13         |       |               |       |              |  |
| BENZO(K)FLUORANTHENE                    |  | 0.058       |           | 6.3                         | 0.36  |              |       | 0.52          |       | 0.41         |       | 0.19         |       |               |       |              |  |
| CHRYSENE                                |  | 0.3         |           | 7.4                         | 1.7   |              |       | 0.6           |       | 0.46         |       | 1.1          |       |               |       |              |  |
| DIBENZ(A,H)ANTHRACENE                   |  | 0.013       |           | 0.51                        | 0.14  |              |       | 0.049         |       | 0.043        |       | 0.066        |       |               |       |              |  |
| FLUORANTHENE                            |  | 0.051 U     |           | 19                          | 2.2   |              |       | 1.2           |       | 0.93         |       | 2.8          |       |               |       |              |  |
| FLUORENE                                |  | 0.011       |           | 2.7                         | 0.079 |              |       | 0.073         |       | 0.071        |       | 0.081        |       |               |       |              |  |
| INDENO(1,2,3-C,D)PYRENE                 |  | 0.026 U     |           | 2.3                         | 0.23  |              |       | 0.13          |       | 0.069        |       | 0.12         |       |               |       |              |  |
| NAPHTHALENE                             |  | 0.011       |           | 0.8                         | 0.018 |              |       | 0.017         |       | 0.013        |       | 0.02         |       |               |       |              |  |
| PENTACHLOROPHENOL                       |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| PHENANTHRENE                            |  | 0.022       |           | 19                          | 1.4   |              |       | 0.59          |       | 0.55         |       | 1.3          |       |               |       |              |  |
| PYRENE                                  |  | 0.058 J     |           | 14                          | 1.5 J |              |       | 0.81          |       | 0.73         |       | 1 J          |       |               |       |              |  |
| PAHs (total)                            |  | 0.89        |           | 97                          | 9.5   |              |       | 5.9           |       | 4.8          |       | 8.5          |       |               |       |              |  |
| Pesticides by MC PEST (mg/kg)           |  |             |           |                             |       |              |       |               |       |              |       |              |       |               |       |              |  |
| ALDRIN                                  |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE) |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ALPHA-CHLORDANE                         |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ALPHA ENDOSULFAN                        |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)   |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| BETA ENDOSULFAN                         |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE) |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| DIELDRIN                                |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ENDOSULFAN SULFATE                      |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ENDRIN                                  |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ENDRIN ALDEHYDE                         |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| ENDRIN KETONE                           |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| GAMMA BHC (LINDANE)                     |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| GAMMA-CHLORDANE                         |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| HEPTACHLOR                              |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| HEPTACHLOR EPOXIDE                      |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| METHOXYCHLOR                            |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| P,P'-DDD                                |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| P,P'-DDE                                |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| P,P'-DDT                                |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |
| TOXAPHENE                               |  | --          |           | --                          | --    |              |       | --            |       | --           |       | --           |       |               |       |              |  |

Table 4-6a  
Summary of Results for Reach 7 Sediment Samples

Key:

BGS = Below ground surface (in this case below top of sediment surface).  
 -C = Hand-core creek location/sample.  
 -Comp = Hand-core creek composite sample.  
 -CR= Hand-core creek duplicate sample.  
 ft = Feet.  
 J = Estimated at the concentration listed.  
 mg/Kg = Milligrams per kilogram.  
 NJ = Estimated.  
 PCB = Polychlorinated biphenyl.  
 SVOA = Semivolatile organic compounds analysis.  
 -T = Tributary location/sample.  
 U = Non-detected.  
 UJ = Non-detected/estimated.  
 -Z = Sample depth interval consecutively numbered.  
 -- = Not submitted for this parameter.

Table 4-6b

Summary of Result for Reach 7 Soil Samples

| Analyte                  | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R7-118-W   |  | R7-130-H   |  | R7-131-H   |  | R7-132-H   |  | R7-133-H   |  | R7-134-H   |  |
|--------------------------|-----------|--|-------------|--|-----------------------------|--|------------|--|------------|--|------------|--|------------|--|------------|--|------------|--|
|                          |           |  |             |  |                             |  | 11/30/2009 |  | 11/30/2009 |  | 11/30/2009 |  | 11/25/2009 |  | 11/24/2009 |  | 11/23/2009 |  |
|                          |           |  |             |  |                             |  | 0-0.5      |  | 0-0.5      |  | 0-0.5      |  | 0-0.5      |  | 0-0.5      |  | 0-0.5      |  |
| Metals by C200.7 (mg/kg) |           |  |             |  |                             |  |            |  |            |  |            |  |            |  |            |  |            |  |
| ALUMINIUM                |           |  |             |  |                             |  | 9240 J     |  | 9620 J     |  | 9050 J     |  | 13100      |  | 11900      |  | 12500      |  |
| ANTIMONY                 |           |  |             |  |                             |  | 2.6 J      |  | 1.4 U      |  | 1.3 U      |  | 3 U        |  | 1.5 U      |  | 1.9 U      |  |
| ARSENIC                  |           |  |             |  |                             |  | 4.3        |  | 3.7 J+     |  | 3.6 J+     |  | 10.7       |  | 6.4 J+     |  | 6.8        |  |
| BARIUM                   |           |  |             |  |                             |  | 122 J      |  | 116 J      |  | 178 J      |  | 255        |  | 173        |  | 176        |  |
| BERYLLIUM                |           |  |             |  |                             |  | 0.64 J     |  | 0.57 J+    |  | 0.51 J+    |  | 0.83 J     |  | 0.81 J+    |  | 0.79 J+    |  |
| CADMIUM                  |           |  |             |  |                             |  | 0.96       |  | 0.085 UJ   |  | 0.081 UJ   |  | 2.4        |  | 0.49 J-    |  | 2.7        |  |
| CALCIUM                  |           |  |             |  |                             |  | 12800 J    |  | 4650 J     |  | 11100 J    |  | 9360       |  | 5160       |  | 22800      |  |
| CHROMIUM                 |           |  |             |  |                             |  | 78.4 J     |  | 25.6 J     |  | 88.5 J     |  | 57.9       |  | 34.4       |  | 109        |  |
| COBALT                   |           |  |             |  |                             |  | 9.3 J      |  | 8.5        |  | 8.1        |  | 8.5 J      |  | 9.7        |  | 11.4       |  |
| COPPER                   |           |  |             |  |                             |  | 275 J      |  | 41.7 J     |  | 268 J      |  | 143        |  | 66.8       |  | 272        |  |
| IRON                     |           |  |             |  |                             |  | 17300 J    |  | 18700 J    |  | 17600 J    |  | 18800      |  | 23200      |  | 24600      |  |
| LEAD                     |           |  |             |  |                             |  | 339 J      |  | 56.9 J     |  | 309 J      |  | 276 J+     |  | 139 J+     |  | 400        |  |
| MAGNESIUM                |           |  |             |  |                             |  | 7130 J     |  | 3160 J     |  | 6030 J     |  | 4370       |  | 3820       |  | 9670       |  |
| MANGANESE                |           |  |             |  |                             |  | 305 J      |  | 404 J      |  | 248 J      |  | 126        |  | 406        |  | 526        |  |
| NICKEL                   |           |  |             |  |                             |  | 101        |  | 22         |  | 49.6       |  | 40.1       |  | 28.7       |  | 77.4       |  |
| POTASSIUM                |           |  |             |  |                             |  | 922 J      |  | 949        |  | 721 J      |  | 1800 J     |  | 1490       |  | 1400       |  |
| SELENIUM                 |           |  |             |  |                             |  | 2.3 J      |  | 2 J        |  | 2.2 J      |  | 3.7 J      |  | 0.94 U     |  | 1.2 U      |  |
| SILVER                   |           |  |             |  |                             |  | 0.77 J     |  | 0.15 UJ    |  | 0.73 J-    |  | 0.34 U     |  | 0.17 UJ    |  | 0.3 J-     |  |
| SODIUM                   |           |  |             |  |                             |  | 4 UJ       |  | 3.6 UJ     |  | 3.4 UJ     |  | 428 J-     |  | 271 J      |  | 821 J      |  |
| THALLIUM                 |           |  |             |  |                             |  | 0.6 U      |  | 0.54 U     |  | 0.52 U     |  | 1.2 U      |  | 0.62 U     |  | 0.76 U     |  |
| VANADIUM                 |           |  |             |  |                             |  | 24.3       |  | 20.5       |  | 18.6       |  | 31.2       |  | 24.8       |  | 28.7       |  |
| ZINC                     |           |  |             |  |                             |  | 820 J      |  | 159 J      |  | 717 J      |  | 535        |  | 193        |  | 1030       |  |
| Mercury by CV (mg/kg)    |           |  |             |  |                             |  |            |  |            |  |            |  |            |  |            |  |            |  |
| MERCURY                  |           |  |             |  |                             |  | 0.99       |  | 0.16 J     |  | 1.5        |  | 0.89       |  | 1          |  | 0.27       |  |
| PCBS by MC ARO (mg/kg)   |           |  |             |  |                             |  |            |  |            |  |            |  |            |  |            |  |            |  |
| PCB-1016 (AROCOR 1016)   |           |  |             |  |                             |  | 0.016 U    |  | 0.014 U    |  | 0.015 U    |  | 0.019 U    |  | 0.016 U    |  | 0.015 U    |  |
| PCB-1221 (AROCOR 1221)   |           |  |             |  |                             |  | 0.03 U     |  | 0.026 U    |  | 0.028 U    |  | 0.036 U    |  | 0.031 U    |  | 0.028 U    |  |
| PCB-1232 (AROCOR 1232)   |           |  |             |  |                             |  | 0.011 U    |  | 0.0094 U   |  | 0.01 U     |  | 0.013 U    |  | 0.011 U    |  | 0.01 U     |  |
| PCB-1242 (AROCOR 1242)   |           |  |             |  |                             |  | 0.007 U    |  | 0.006 U    |  | 0.0064 U   |  | 0.0083 U   |  | 0.0072 U   |  | 0.0066 U   |  |
| PCB-1248 (AROCOR 1248)   |           |  |             |  |                             |  | 0.012 U    |  | 0.0098 U   |  | 0.011 U    |  | 0.014 U    |  | 0.012 U    |  | 0.011 U    |  |
| PCB-1254 (AROCOR 1254)   |           |  |             |  |                             |  | 0.19       |  | 0.0079 U   |  | 1.3        |  | 0.035 J    |  | 0.045 J    |  | 3.3 J      |  |
| PCB-1260 (AROCOR 1260)   |           |  |             |  |                             |  | 0.014 U    |  | 0.012 U    |  | 0.012 U    |  | 0.016 U    |  | 0.014 U    |  | 0.013 U    |  |
| PCB-1262 (AROCOR 1262)   |           |  |             |  |                             |  | 0.013 U    |  | 0.011 U    |  | 0.012 U    |  | 0.015 U    |  | 0.013 U    |  | 0.012 U    |  |
| PCB-1268 (AROCOR 1268)   |           |  |             |  |                             |  | 0.018 U    |  | 0.015 U    |  | 0.017 U    |  | 0.021 U    |  | 0.018 U    |  | 0.017 U    |  |
| PCBs (total)             |           |  |             |  |                             |  | 0.19       |  | 0.011 U    |  | 1.3        |  | 0.035      |  | 0.045      |  | 3.3        |  |

Key at the end Table

Table 4-6b  
Summary of Result for Reach 7 Soil Samples

| Analyte                                  | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R7-118-W   | R7-130-H   | R7-131-H   | R7-132-H   | R7-133-H   | R7-134-H   |
|------------------------------------------|-----------|--|-------------|--|-----------------------------|--|------------|------------|------------|------------|------------|------------|
|                                          |           |  |             |  |                             |  | 11/30/2009 | 11/30/2009 | 11/30/2009 | 11/25/2009 | 11/24/2009 | 11/23/2009 |
|                                          |           |  |             |  |                             |  | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5      |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |  |             |  |                             |  |            |            |            |            |            |            |
| 2-METHYLNAPHTHALENE                      |           |  |             |  |                             |  | 0.14       | --         | --         | --         | 0.19       | --         |
| ACENAPHTHENE                             |           |  |             |  |                             |  | 0.29       | --         | --         | --         | 0.25       | --         |
| ACENAPHTHYLENE                           |           |  |             |  |                             |  | 0.08       | --         | --         | --         | 0.21 J     | --         |
| ANTHRACENE                               |           |  |             |  |                             |  | 0.55       | --         | --         | --         | 0.82       | --         |
| BENZO(A)ANTHRACENE                       |           |  |             |  |                             |  | 2.2        | --         | --         | --         | 3.2        | --         |
| BENZO(A)PYRENE                           |           |  |             |  |                             |  | 0.96       | --         | --         | --         | 1.9        | --         |
| BENZO(B)FLUORANTHENE                     |           |  |             |  |                             |  | 1.8        | --         | --         | --         | 2.4        | --         |
| BENZO(K)FLUORANTHENE                     |           |  |             |  |                             |  | 1.3        | --         | --         | --         | 1.6        | --         |
| CHRYSENE                                 |           |  |             |  |                             |  | 1.9        | --         | --         | --         | 2.6        | --         |
| DIBENZ(A,H)ANTHRACENE                    |           |  |             |  |                             |  | 0.21       | --         | --         | --         | 0.61       | --         |
| FLUORANTHENE                             |           |  |             |  |                             |  | 5.4        | --         | --         | --         | 4.6        | --         |
| FLUORENE                                 |           |  |             |  |                             |  | 0.31       | --         | --         | --         | 0.33 J     | --         |
| INDENO(1,2,3-C,D)PYRENE                  |           |  |             |  |                             |  | 2.8        | --         | --         | --         | 3.9        | --         |
| NAPHTHALENE                              |           |  |             |  |                             |  | 0.28       | --         | --         | --         | 0.2 J      | --         |
| PENTACHLOROPHENOL                        |           |  |             |  |                             |  | 0.045      | --         | --         | --         | 0.045      | --         |
| PHENANTHRENE                             |           |  |             |  |                             |  | 3.7        | --         | --         | --         | 2.6        | --         |
| PYRENE                                   |           |  |             |  |                             |  | 3          | --         | --         | --         | 3.9        | --         |
| PAHs (total)                             |           |  |             |  |                             |  | 25         | --         | --         | --         | 29         | --         |
| Pesticides by MC PEST (mg/kg)            |           |  |             |  |                             |  |            |            |            |            |            |            |
| ALDRIN                                   |           |  |             |  |                             |  | 0.00057 U  | --         | --         | --         | 0.00056 U  | --         |
| ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)  |           |  |             |  |                             |  | 0.00089 U  | --         | --         | --         | 0.00089 U  | --         |
| ALPHA-CHLORDANE                          |           |  |             |  |                             |  | 0.00044 U  | --         | --         | --         | 0.00044 U  | --         |
| ALPHA ENDOSULFAN                         |           |  |             |  |                             |  | 0.00052 U  | --         | --         | --         | 0.00052 U  | --         |
| BETA BHC (BETA HEXACHLOROCYCLOHEXANE)    |           |  |             |  |                             |  | 0.0012 U   | --         | --         | --         | 0.0012 U   | --         |
| BETA ENDOSULFAN                          |           |  |             |  |                             |  | 0.003 U    | --         | --         | --         | 0.003 U    | --         |
| DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)  |           |  |             |  |                             |  | 0.0011 U   | --         | --         | --         | 0.001 U    | --         |
| DIELDRIN                                 |           |  |             |  |                             |  | 0.0074     | --         | --         | --         | 0.001 U    | --         |
| ENDOSULFAN SULFATE                       |           |  |             |  |                             |  | 0.0071 J   | --         | --         | --         | 0.001 U    | --         |
| ENDRIN                                   |           |  |             |  |                             |  | 0.001 U    | --         | --         | --         | 0.001 U    | --         |
| ENDRIN ALDEHYDE                          |           |  |             |  |                             |  | 0.0033 U   | --         | --         | --         | 0.0033 U   | --         |
| ENDRIN KETONE                            |           |  |             |  |                             |  | 0.004 U    | --         | --         | --         | 0.004 U    | --         |
| GAMMA BHC (LINDANE)                      |           |  |             |  |                             |  | 0.00084 U  | --         | --         | --         | 0.00084 U  | --         |
| GAMMA-CHLORDANE                          |           |  |             |  |                             |  | 0.0086     | --         | --         | --         | 0.00066 U  | --         |
| HEPTACHLOR                               |           |  |             |  |                             |  | 0.0011 U   | --         | --         | --         | 0.0011 U   | --         |
| HEPTACHLOR EPOXIDE                       |           |  |             |  |                             |  | 0.00075 U  | --         | --         | --         | 0.00075 U  | --         |

Key at the end Table



Table 4-6b  
Summary of Result for Reach 7 Soil Samples

| Analyte      | Sample ID |  | Sample Date |  | Sample Depth Range (ft BGS) |  | R7-118-W   | R7-130-H   | R7-131-H   | R7-132-H   | R7-133-H   | R7-134-H   |
|--------------|-----------|--|-------------|--|-----------------------------|--|------------|------------|------------|------------|------------|------------|
|              |           |  |             |  |                             |  | 11/30/2009 | 11/30/2009 | 11/30/2009 | 11/25/2009 | 11/24/2009 | 11/23/2009 |
|              |           |  |             |  |                             |  | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5      | 0-0.5      |
| METHOXYCHLOR |           |  |             |  |                             |  | 0.0033 U   | --         | --         | --         | 0.0033 U   | --         |
| P,P'-DDD     |           |  |             |  |                             |  | 0.0023 U   | --         | --         | --         | 0.0023 U   | --         |
| P,P'-DDE     |           |  |             |  |                             |  | 0.0014 U   | --         | --         | --         | 0.0014 U   | --         |
| P,P'-DDT     |           |  |             |  |                             |  | 0.0039 U   | --         | --         | --         | 0.0039 U   | --         |
| TOXAPHENE    |           |  |             |  |                             |  | 0.17 U     | --         | --         | --         | 0.17 U     | --         |

Key:

BGS = Below ground surface.  
ft = Feet.  
J = Estimated at the concentration listed.  
-H = Historical channel location/sample.  
mg/Kg = Milligrams per kilogram.  
PCB = Polychlorinated biphenyl.  
SVOA = Semivolatile organic compounds analysis.  
U = Non-detect.  
UJ = Non-detect/estimated.  
-W = Wetland location/sample.  
-- = Not submitted for this parameter.

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID    | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|--------------|-------------|-----------------------------|------------------------------|
| R2-001-V-Z1P | 05/18/10    | 0-1                         | 44,600                       |
| R2-001-V-Z2  | 05/18/10    | 1-2                         | 47,300                       |
| R2-001-V-Z3  | 05/18/10    | 2-3                         | 91,800                       |
| R2-001-V-Z4  | 05/18/10    | 3-4                         | 97,600                       |
| R2-001-V-Z5  | 05/18/10    | 4-5                         | 41,600                       |
| R2-001-V-Z6  | 05/18/10    | 6-7                         | 12,400                       |
| R2-002-V-Z1P | 05/18/10    | 0-1                         | 46,200                       |
| R2-002-V-Z1  | 05/18/10    | 0-1                         | 43,200                       |
| R2-002-V-Z2  | 05/18/10    | 1-2                         | 46,400                       |
| R2-002-V-Z3  | 05/18/10    | 2-3                         | 60,700                       |
| R2-002-V-Z4  | 05/18/10    | 3-4                         | 86,600                       |
| R2-002-V-Z5  | 05/18/10    | 4-6                         | 46,800                       |
| R2-002-VR    | 05/18/10    | 4-6                         | 86,700                       |
| R2-002-V-Z6  | 05/18/10    | 6-7.5                       | 57,700                       |
| R2-003-V-Z1P | 05/18/10    | 0-1                         | 43,800                       |
| R2-003-V-Z1  | 05/18/10    | 0-1                         | 39,400                       |
| R2-003-V-Z2  | 05/18/10    | 1-2                         | 42,800                       |
| R2-003-V-Z3  | 05/18/10    | 2-3                         | 92,400                       |
| R2-003-V-Z4  | 05/18/10    | 3-4                         | 81,000                       |
| R2-003-V-Z5  | 05/18/10    | 4-5                         | 56,300                       |
| R2-003-V-Z6  | 05/18/10    | 6-7                         | 89,600                       |
| R2-004-V-Z1P | 05/18/10    | 0-1                         | 42,300                       |
| R2-004-V-Z1  | 05/18/10    | 0-1                         | 39,000                       |
| R2-004-V-Z2  | 05/18/10    | 1-2                         | 47,800                       |
| R2-004-VR    | 05/18/10    | 1-2                         | 42,800                       |
| R2-004-V-Z3  | 05/18/10    | 2-3                         | 73,100                       |
| R2-004-V-Z4  | 05/18/10    | 3-3.5                       | 67,300                       |
| R2-004-V-Z5  | 05/18/10    | 4.5-5                       | 24,400                       |
| R2-005-V-Z1P | 05/19/10    | 0-1                         | 93,100                       |
| R2-005-V-Z1  | 05/19/10    | 0-1                         | 43,900                       |
| R2-005-V-Z2  | 05/19/10    | 1-2                         | 46,900                       |
| R2-005-V-Z3  | 05/19/10    | 2-3                         | 107,000                      |
| R2-005-V-Z4  | 05/19/10    | 3-4                         | 69,800                       |
| R2-005-V-Z5  | 05/19/10    | 4-6                         | 87,400                       |
| R2-005-V-Z6  | 05/19/10    | 6-7                         | 63,100                       |
| R2-006-V-Z1P | 05/19/10    | 0-1                         | 46,500                       |
| R2-006-V-Z1  | 05/19/10    | 0-1                         | 29,600                       |
| R2-006-V-Z2  | 05/19/10    | 1-2                         | 44,800                       |
| R2-006-V-Z3  | 05/19/10    | 2-3                         | 78,500                       |
| R2-006-VR    | 05/19/10    | 2-3                         | 105,000                      |
| R2-006-V-Z4  | 05/19/10    | 3-4                         | 92,700                       |
| R2-006-V-Z5a | 05/19/10    | 4-5                         | 75,200                       |
| R2-006-V-Z5b | 05/19/10    | 5-6                         | 40,400                       |
| R2-007-V-Z1  | 05/19/10    | 0-1                         | 40,600                       |
| R2-007-V-Z1P | 05/19/10    | 0-1                         | 51,100                       |
| R2-007-V-Z2  | 05/19/10    | 1-2                         | 58,300                       |
| R2-007-V-Z3  | 05/19/10    | 2-3                         | 136,000                      |
| R2-007-V-Z4  | 05/19/10    | 3-4                         | 78,800                       |
| R2-007-V-Z5a | 05/19/10    | 4-5                         | 29,800                       |
| R2-007-V-Z5b | 05/19/10    | 5-6                         | 3,980                        |
| R2-008-V-Z1  | 05/19/10    | 0-1                         | 56,300                       |
| R2-008-V-Z1P | 05/19/10    | 0-1                         | 45,500                       |
| R2-008-V-Z2  | 05/19/10    | 1-2                         | 57,400                       |
| R2-008-V-Z3  | 05/19/10    | 2-3                         | 106,000                      |
| R2-008-V-Z4  | 05/19/10    | 3-4                         | 70,000                       |
| R2-008-V-Z5  | 05/19/10    | 4.5-5                       | 12,700                       |
| R2-009-V-Z1  | 05/19/10    | 0-1                         | 45,700                       |
| R2-009-V-Z1P | 05/19/10    | 0-1                         | 37,200                       |
| R2-009-V-Z2  | 05/19/10    | 1-2                         | 54,300                       |
| R2-009-V-Z3  | 5/19/10     | 2-3                         | 99,700                       |
| R2-009-V-Z4  | 5/19/10     | 3-4                         | 85,400                       |
| R2-009-VR    | 5/19/10     | 3-4                         | 51,500                       |
| R2-009-V-Z5  | 5/19/10     | 4-5.5                       | 61,700                       |
| R2-010-V-Z1  | 5/25/10     | 0-1                         | 55,200                       |
| R2-010-V-Z2  | 5/25/10     | 1-2                         | 60,400                       |
| R2-010-V-Z3  | 5/25/10     | 2-3                         | 72,100                       |
| R2-010-V-Z4  | 5/25/10     | 3-4                         | 138,000                      |
| R2-010-V-Z5  | 5/25/10     | 4-6                         | 95,200                       |
| R2-010-V-Z6  | 5/25/10     | 6-8                         | 64,500                       |
| R2-010-VR    | 5/25/10     | 6-8                         | 66,500                       |
| R2-010-V-Z7a | 5/25/10     | 8-9                         | 8,750                        |
| R2-010-V-Z7b | 5/25/10     | 9-10                        | 20,100                       |
| R2-011-V-Z1  | 5/25/10     | 0-1                         | 32,000                       |
| R2-011-V-Z2  | 5/25/10     | 1-2                         | 55,600                       |
| R2-011-V-Z3  | 5/25/10     | 2-3                         | 73,200                       |
| R2-011-V-Z4  | 5/25/10     | 3-4                         | 62,200                       |
| R2-011-V-Z5  | 5/25/10     | 4-6                         | 124,000                      |
| R2-011-V-Z6  | 5/25/10     | 6-8                         | 106,000                      |
| R2-011-V-Z7  | 5/25/10     | 8-10                        | 79,500                       |
| R2-011-V-Z8  | 5/25/10     | 10-11.5                     | 43,200                       |
| R2-012-V-Z1  | 5/25/10     | 0-1                         | 48,900                       |
| R2-012-V-Z2  | 5/25/10     | 1-2                         | 52,300                       |
| R2-012-V-Z3  | 5/25/10     | 2-3                         | 47,600                       |
| R2-012-V-Z4  | 5/25/10     | 3-4                         | 87,700                       |
| R2-012-VR    | 5/25/10     | 3-4                         | 84,600                       |
| R2-012-V-Z5  | 5/25/10     | 4-6                         | 139,000                      |
| R2-012-V-Z6  | 5/25/10     | 6-8                         | 59,800                       |
| R2-012-V-Z7  | 5/25/10     | 8-9                         | 25,900                       |
| R2-013-V-Z1  | 5/25/10     | 0-1                         | 53,000                       |
| R2-013-V-Z2  | 5/25/10     | 1-2                         | 50,700                       |
| R2-013-V-Z3  | 5/25/10     | 2-3                         | 49,400                       |
| R2-013-V-Z4  | 5/25/10     | 3-4                         | 67,500                       |
| R2-013-V-Z5  | 5/25/10     | 4-6                         | 133,000                      |
| R2-013-V-Z6  | 5/25/10     | 6-8                         | 128,000                      |
| R2-013-V-Z7  | 5/25/10     | 8-10                        | 109,000                      |
| R2-013-V-Z8  | 5/25/10     | 10-12                       | 89,600                       |
| R2-014-V-Z1  | 5/25/10     | 0-1                         | 60,000                       |
| R2-014-V-Z2  | 5/25/10     | 1-2                         | 45,900                       |
| R2-014-V-Z3  | 5/25/10     | 2-3                         | 124,000                      |
| R2-014-V-Z4  | 5/25/10     | 3-4                         | 150,000                      |
| R2-014-V-Z5  | 5/25/10     | 4-6                         | 130,000                      |
| R2-014-VR    | 5/25/10     | 4-6                         | 128,000                      |
| R2-014-V-Z6  | 5/25/10     | 6-8                         | 97,600                       |
| R2-014-V-Z7  | 5/25/10     | 8-10                        | 107,000                      |
| R2-015-V-Z1  | 5/25/10     | 0-1                         | 31,700                       |
| R2-015-V-Z2  | 5/25/10     | 1-2                         | 64,500                       |
| R2-015-V-Z3  | 5/25/10     | 2-3                         | 131,000                      |
| R2-015-V-Z4  | 5/25/10     | 3-4                         | 116,000                      |
| R2-015-V-Z5  | 5/25/10     | 4-6                         | 92,100                       |
| R2-015-V-Z6  | 5/25/10     | 6-8                         | 66,100                       |
| R2-015-V-Z7a | 5/25/10     | 8-9                         | 33,500                       |
| R2-015-V-Z7b | 5/25/10     | 9-9.5                       | 2,470                        |

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID   | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|-------------|-------------|-----------------------------|------------------------------|
| R3-016-V-Z1 | 05/26/10    | 0-1                         | 70,900                       |
| R3-016-V-Z2 | 05/26/10    | 1-2                         | 109,000                      |
| R3-016-V-Z3 | 05/26/10    | 2-3                         | 97,900                       |
| R3-016-V-Z4 | 05/26/10    | 3-4                         | 86,800                       |
| R3-016-VR   | 05/26/10    | 3-4                         | 76,000                       |
| R3-016-V-Z5 | 05/26/10    | 4-6                         | 82,300                       |
| R3-016-V-Z6 | 05/26/10    | 6-8                         | 67,500                       |
| R3-016-V-Z7 | 05/26/10    | 8-9                         | 3,380                        |
| R3-017-V-Z1 | 05/26/10    | 0-1                         | 34,000                       |
| R3-017-V-Z2 | 05/26/10    | 1-2                         | 44,900                       |
| R3-017-V-Z3 | 05/26/10    | 2-3                         | 71,000                       |
| R3-017-V-Z4 | 05/26/10    | 3-4                         | 125,000                      |
| R3-017-V-Z5 | 05/26/10    | 4-6                         | 130,000                      |
| R3-017-VR   | 05/26/10    | 4-6                         | 121,000                      |
| R3-017-V-Z6 | 05/26/10    | 6-8                         | 77,900                       |
| R3-017-V-Z7 | 05/26/10    | 8-8.5                       | 62,800                       |
| R3-018-V-Z1 | 05/25/10    | 0-1                         | 57,400                       |
| R3-018-V-Z2 | 05/25/10    | 1-2                         | 68,800                       |
| R3-018-V-Z3 | 05/25/10    | 2-3                         | 126,000                      |
| R3-018-V-Z4 | 05/25/10    | 3-4                         | 141,000                      |
| R3-018-V-Z5 | 05/25/10    | 4-6                         | 118,000                      |
| R3-018-V-Z6 | 05/25/10    | 6-8                         | 95,000                       |
| R3-018-V-Z7 | 05/25/10    | 8-10                        | 88,400                       |
| R3-018-V-Z8 | 05/25/10    | 10-12                       | 56,800                       |
| R3-019-V-Z1 | 05/26/10    | 0-1                         | 61,400                       |
| R3-019-V-Z2 | 05/26/10    | 1-2                         | 73,200                       |
| R3-019-V-Z3 | 05/26/10    | 2-3                         | 99,200                       |
| R3-019-V-Z4 | 05/26/10    | 3-4                         | 85,900                       |
| R3-020-V-Z1 | 05/26/10    | 0-1                         | 47,300                       |
| R3-020-V-Z2 | 05/26/10    | 1-2                         | 139,000                      |
| R3-020-V-Z3 | 05/26/10    | 2-3                         | 122,000                      |
| R3-020-V-Z4 | 05/26/10    | 3-4                         | 106,000                      |
| R3-020-V-Z5 | 05/26/10    | 4-6                         | 102,000                      |
| R3-020-V-Z6 | 05/26/10    | 6-8                         | 81,800                       |
| R3-020-V-Z7 | 05/26/10    | 8-10                        | 68,100                       |
| R3-021-V-Z1 | 05/26/10    | 0-1                         | 9,710                        |
| R3-021-V-Z2 | 05/26/10    | 1-2                         | 2,250                        |
| R3-021-V-Z3 | 05/26/10    | 2-3                         | 1,240                        |
| R3-022-V-Z1 | 05/26/10    | 0-1                         | 21,600                       |
| R3-022-V-Z2 | 05/26/10    | 1-2                         | 43,100                       |
| R3-022-VR   | 05/26/10    | 1-2                         | 37,100                       |
| R3-022-V-Z3 | 05/26/10    | 2-3                         | 53,500                       |
| R3-022-V-Z4 | 05/26/10    | 3-4                         | 48,200                       |
| R3-022-V-Z5 | 05/26/10    | 4-6                         | 45,900                       |
| R3-022-V-Z6 | 05/26/10    | 6-6.8                       | 2,980                        |
| R3-023-V-Z1 | 05/26/10    | 0-1                         | 24,600                       |
| R3-023-V-Z2 | 05/26/10    | 1-2                         | 6,390                        |
| R3-024-V-Z1 | 05/26/10    | 0-1                         | 62,500                       |
| R3-024-V-Z2 | 05/26/10    | 1-2                         | 125,000                      |
| R3-024-V-Z3 | 05/26/10    | 2-3                         | 114,000                      |
| R3-024-V-Z4 | 05/26/10    | 3-4                         | 116,000                      |
| R3-024-V-Z5 | 05/26/10    | 4-6                         | 55,700                       |
| R3-024-V-Z6 | 05/26/10    | 6-8                         | 29,300                       |
| R3-025-V-Z1 | 05/26/10    | 0-1                         | 3,400                        |
| R3-026-V-Z1 | 05/27/10    | 0-1                         | 47,400                       |
| R3-026-V-Z2 | 05/27/10    | 1-2                         | 46,000                       |
| R3-026-V-Z3 | 05/27/10    | 2-3                         | 103,000                      |

| Sample ID   | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|-------------|-------------|-----------------------------|------------------------------|
| R3-026-V-Z4 | 05/27/10    | 3-4                         | 80,800                       |
| R3-027-V-Z1 | 05/27/10    | 0-1                         | 47,100                       |
| R3-027-V-Z2 | 05/27/10    | 1-2                         | 82,200                       |
| R3-027-V-Z3 | 05/27/10    | 2-3                         | 114,000                      |
| R3-027-V-Z4 | 05/27/10    | 3-4                         | 102,000                      |
| R3-107-W    | 11/16/09    | 0-0.5                       | 80,000                       |
| R3-108-W    | 11/16/09    | 0-0.5                       | 68,000                       |
| R3-109-W    | 11/16/09    | 0-0.5                       | 44,000                       |
| R3-110-W    | 11/16/09    | 0-0.5                       | 73,000                       |

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID     | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|---------------|-------------|-----------------------------|------------------------------|
| R4-028-C      | 11/17/09    | 0-1.55                      | 56,000                       |
| R4-029-C      | 11/16/09    | 0-1.2                       | 47,000                       |
| R4-030-C      | 11/16/09    | 0-1.1                       | 147,000                      |
| R4-031-C      | 11/16/09    | 0-0.8                       | 52,000                       |
| R4-032-C      | 11/16/09    | 0-0.7                       | 39,000                       |
| R4-033-C      | 11/17/09    | 0-0.4                       | 16,000                       |
| R4-034-C      | 11/17/09    | 0-0.4                       | 63,000                       |
| R4-035-C      | 11/17/09    | 0-0.8                       | 63,000                       |
| R4-036-C      | 11/17/09    | 0-0.9                       | 104,000                      |
| R4-037-C      | 11/17/09    | 0-0.6                       | 30,000                       |
| R4-038-C      | 11/18/09    | 0-0.4                       | 32,000                       |
| R4-111-W      | 11/16/09    | 0-0.5                       | 20,000                       |
| R4-112-W      | 11/18/09    | 0-0.5                       | 46,000                       |
| R4-119-T      | 11/17/09    | 0-0.5                       | 22,000                       |
| R4-126-H      | 11/16/09    | 0-0.5                       | 103,000                      |
| R4-135-C-Z1a  | 06/21/10    | 0-0.5                       | 115,000                      |
| R4-135-C-Comp | 06/21/10    | 0-0.8                       | 46,100                       |
| R4-136-C-Z1a  | 06/21/10    | 0-0.4                       | 80,900                       |
| R4-137-C-Comp | 06/21/10    | 0-0.7                       | 61,900                       |
| R4-138-C-Comp | 06/21/10    | 0-0.4                       | 60,700                       |
| R4-139-C-Z1a  | 06/22/10    | 0-0.3                       | 59,200                       |
| R4-140-C-Z1a  | 06/23/10    | 0-0.3                       | 26,900                       |
| R4-141-C-Z1a  | 06/23/10    | 0-0.5                       | 41,300                       |
| R4-141-CR     | 06/23/10    | 0-0.5                       | 30,700                       |
| R4-141-C-Comp | 06/23/10    | 0-0.8                       | 46,200                       |
| R4-142-C-Z1a  | 06/23/10    | 0-0.2                       | 29,000                       |
| R4-143-C-Z1a  | 06/23/10    | 0-0.3                       | 102,000                      |

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID    | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|--------------|-------------|-----------------------------|------------------------------|
| R5-039-V-Z1  | 05/21/10    | 0-1                         | 41,600                       |
| R5-040-V-Z1  | 05/20/10    | 0-1                         | 64,900                       |
| R5-040-V-Z2  | 05/20/10    | 1-2                         | 58,500                       |
| R5-040-V-Z3  | 05/20/10    | 2-3                         | 61,900                       |
| R5-040-V-Z4  | 05/20/10    | 3-4                         | 55,900                       |
| R5-040-V-Z5a | 05/20/10    | 4.5-5                       | 3,990                        |
| R5-041-V-Z1  | 05/24/10    | 0-1                         | 65,100                       |
| R5-041-V-Z2  | 05/24/10    | 1-2                         | 61,400                       |
| R5-041-V-Z3  | 05/24/10    | 2-3                         | 63,600                       |
| R5-041-V-Z4  | 05/24/10    | 3-4                         | 81,600                       |
| R5-041-V-Z5a | 05/24/10    | 4-5                         | 68,300                       |
| R5-041-V-Z5b | 05/24/10    | 5-6                         | 44,200                       |
| R5-041-V-Z6a | 05/24/10    | 6-7                         | 24,600                       |
| R5-041-V-Z6b | 05/24/10    | 7-7.5                       | 1,170                        |
| R5-042-V-Z1  | 05/20/10    | 0-1                         | 63,200                       |
| R5-042-V-Z2  | 05/20/10    | 1-2                         | 39,400                       |
| R5-042-V-Z3  | 05/20/10    | 2-3                         | 68,000                       |
| R5-042-V-Z4  | 05/20/10    | 3-4                         | 48,400                       |
| R5-042-V-Z5a | 05/20/10    | 4.5-5                       | 22,500                       |
| R5-043-V-Z1  | 05/20/10    | 0-1                         | 51,300                       |
| R5-043-V-Z1P | 05/20/10    | 0-1                         | 61,600                       |
| R5-043-V-Z2  | 05/20/10    | 1-2                         | 61,800                       |
| R5-043-V-Z3  | 05/20/10    | 2-3                         | 80,800                       |
| R5-043-V-Z4  | 05/20/10    | 3-4                         | 51,500                       |
| R5-043-V-Z5a | 05/20/10    | 4-4.5                       | 52,400                       |
| R5-043-V-Z5b | 05/20/10    | 4.5-5                       | 4,380                        |
| R5-044-V-Z1  | 05/20/10    | 0-1                         | 88,300                       |
| R5-044-V-Z2  | 05/20/10    | 1-2                         | 76,700                       |
| R5-044-V-R   | 05/20/10    | 1-2                         | 79,700                       |
| R5-044-V-Z3  | 05/20/10    | 2-3                         | 8,210                        |
| R5-045-V-Z2  | 05/20/10    | 1-2                         | 64,400                       |
| R5-045-V-Z3  | 05/20/10    | 2-3                         | 54,800                       |
| R5-045-V-Z4  | 05/20/10    | 3-4                         | 52,900                       |
| R5-045-V-R   | 05/20/10    | 3-4                         | 32,900                       |
| R5-045-V-Z5a | 05/20/10    | 4.5-5                       | 27,600                       |
| R5-046-V-Z1  | 05/20/10    | 0-1                         | 106,000                      |
| R5-046-V-Z2  | 05/20/10    | 1-2                         | 67,100                       |
| R5-046-V-Z3  | 05/20/10    | 2-3                         | 64,400                       |
| R5-046-V-Z4  | 05/20/10    | 3-4                         | 56,900                       |
| R5-046-V-Z5a | 05/20/10    | 4-5                         | 65,800                       |
| R5-046-V-Z5b | 05/20/10    | 5-6                         | 52,000                       |
| R5-046-V-Z6a | 05/20/10    | 6-7                         | 29,800                       |
| R5-047-V-Z1  | 05/20/10    | 0-1                         | 58,300                       |
| R5-047-V-Z2  | 05/20/10    | 1-2                         | 57,300                       |
| R5-047-V-Z3  | 05/20/10    | 2-3                         | 56,100                       |
| R5-047-V-Z4  | 05/20/10    | 3-4                         | 62,700                       |
| R5-048-V-Z1  | 05/21/10    | 0-1                         | 51,500                       |
| R5-048-V-Z2  | 05/21/10    | 1-2                         | 22,100                       |
| R5-048-V-Z3  | 05/21/10    | 2-3                         | 4,890                        |
| R5-049-V-Z1  | 05/21/10    | 0-1                         | 42,600                       |
| R5-049-V-Z2  | 05/21/10    | 1-2                         | 67,000                       |
| R5-049-V-Z3  | 05/21/10    | 2-3                         | 119,000                      |
| R5-049-V-Z4  | 05/21/10    | 3-4                         | 53,100                       |
| R5-049-V-Z5a | 05/21/10    | 4-4.5                       | 57,900                       |
| R5-050-V-Z1  | 05/21/10    | 0-1                         | 62,900                       |
| R5-050-V-Z2  | 05/21/10    | 1-2                         | 87,200                       |
| R5-050-V-R   | 05/21/10    | 1-2                         | 83,200                       |

| Sample ID    | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|--------------|-------------|-----------------------------|------------------------------|
| R5-050-V-Z3  | 05/21/10    | 2-3                         | 130,000                      |
| R5-050-V-Z4  | 05/21/10    | 3-4                         | 122,000                      |
| R5-050-V-Z5a | 05/21/10    | 4-4.5                       | 57,100                       |
| R5-113-W     | 11/18/09    | 0-0.5                       | 48,000                       |
| R5-114-W     | 11/18/09    | 0-0.5                       | 81,000                       |
| R5-115-W     | 11/18/09    | 0-0.5                       | 175,000                      |
| R5-116-W     | 11/19/09    | 0-0.5                       | 73,000                       |
| R5-127-H     | 11/18/09    | 0-0.5                       | 54,000                       |

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID     | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|---------------|-------------|-----------------------------|------------------------------|
| R6-051-C      | 11/19/09    | 0-1.2                       | 62,000                       |
| R6-051-CR     | 11/19/09    | 0-1.2                       | 81,000                       |
| R6-052-C      | 11/19/09    | 0-1.3                       | 84,000                       |
| R6-053-C      | 11/19/09    | 0-1.2                       | 59,000                       |
| R6-054-C      | 12/02/09    | 0-0.5                       | 38,000                       |
| R6-055-C      | 11/17/09    | 0-1.1                       | 51,000                       |
| R6-056-C      | 11/17/09    | 0-1.2                       | 39,000                       |
| R6-056-CR     | 11/17/09    | 0-1.2                       | 26,000                       |
| R6-057-C      | 11/17/09    | 0-1.4                       | 41,000                       |
| R6-058-C      | 11/18/09    | 0-2.2                       | 67,000                       |
| R6-059-C      | 11/18/09    | 0-1.3                       | 38,000                       |
| R6-060-C      | 11/18/09    | 0-0.8                       | 50,000                       |
| R6-061-C      | 11/18/09    | 0-4                         | 86,000                       |
| R6-062-C      | 11/19/09    | 0-3.7                       | 62,000                       |
| R6-063-C      | 11/19/09    | 0-1.1                       | 88,000                       |
| R6-064-C      | 11/19/09    | 0-1.4                       | 89,000                       |
| R6-065-C      | 11/19/09    | 0-2.4                       | 39,000                       |
| R6-066-C      | 11/25/09    | 0-1.9                       | 47,000                       |
| R6-067-C      | 11/25/09    | 0-2.1                       | 47,000                       |
| R6-117-W      | 12/02/09    | 0-0.5                       | 26,000                       |
| R6-128-H      | 12/02/09    | 0-0.5                       | 33,000                       |
| R6-129-H      | 12/02/09    | 0-0.5                       | 23,000                       |
| R6-144-C-Z1a  | 07/02/10    | 0-0.5                       | 41,200                       |
| R6-144-C-Comp | 07/02/10    | 0-1.3                       | 72,400                       |
| R6-145-C-Z1a  | 07/02/10    | 0-0.5                       | 36,900                       |
| R6-145-C-Comp | 07/02/10    | 0-0.7                       | 30,400                       |
| R6-146-C-Z1a  | 07/02/10    | 0-0.5                       | 75,100                       |
| R6-146-C-Comp | 07/02/10    | 0-1.1                       | 64,800                       |
| R6-147-C-Z1a  | 07/01/10    | 0-0.5                       | 51,800                       |
| R6-147-C-Comp | 07/01/10    | 0-0.8                       | 54,900                       |
| R6-148-C-Comp | 07/01/10    | 0-0.9                       | 21,500                       |
| R6-148-CR     | 07/01/10    | 0-0.9                       | 26,700                       |
| R6-149-C-Comp | 07/01/10    | 0-0.9                       | 48,600                       |
| R6-150-C-Comp | 07/01/10    | 0-0.9                       | 46,100                       |
| R6-151-C-Comp | 07/02/10    | 0-0.7                       | 39,600                       |
| R6-152-C-Comp | 07/02/10    | 0-0.7                       | 50,000                       |
| R6-152-CR     | 07/02/10    | 0-0.7                       | 34,400                       |
| R6-153-C-Comp | 07/02/10    | 0-0.5                       | 31,200                       |
| R6-154-C-Z1a  | 07/01/10    | 0-0.5                       | 44,500                       |
| R6-154-C-Comp | 07/01/10    | 0-1.1                       | 45,400                       |
| R6-155-C-Comp | 07/01/10    | 0-0.7                       | 49,900                       |
| R6-156-C-Comp | 07/01/10    | 0-0.7                       | 33,200                       |
| R6-157-C-Z1a  | 07/01/10    | 0-0.5                       | 23,300                       |
| R6-157-C-Comp | 07/01/10    | 0-1.2                       | 64,600                       |
| R6-158-C-Z1a  | 07/01/10    | 0-0.5                       | 21,900                       |
| R6-158-CR     | 07/01/10    | 0-0.5                       | 17,900                       |
| R6-158-C-Comp | 07/01/10    | 0-1.4                       | 41,400                       |
| R6-159-C-Z1a  | 07/01/10    | 0-0.5                       | 28,100                       |
| R6-159-C-Comp | 07/01/10    | 0-1.3                       | 37,900                       |
| R6-160-C-Z1a  | 07/01/10    | 0-0.5                       | 116,000                      |
| R6-160-C-Comp | 07/01/10    | 0-1.7                       | 94,100                       |
| R6-161-C-Z1a  | 07/01/10    | 0-0.5                       | 37,000                       |
| R6-161-C-Z1   | 07/01/10    | 0.5-1.5                     | 51,500                       |
| R6-162-C-Comp | 06/30/10    | 0-0.8                       | 42,800                       |
| R6-163-C-Z1a  | 06/30/10    | 0-0.5                       | 12,000                       |
| R6-163-C-Z1   | 06/30/10    | 0.5-1.4                     | 32,100                       |
| R6-164-C-Z1a  | 06/30/10    | 0-0.5                       | 27,800                       |

| Sample ID     | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|---------------|-------------|-----------------------------|------------------------------|
| R6-164-C-Comp | 06/30/10    | 0-1.4                       | 34,700                       |
| R6-165-C-Z1a  | 06/30/10    | 0-0.5                       | 81,400                       |
| R6-165-C-Comp | 06/30/10    | 0-1.6                       | 72,400                       |
| R6-166-C-Z1a  | 06/30/10    | 0-0.5                       | 73,600                       |
| R6-166-C-Comp | 06/30/10    | 0-2.1                       | 66,100                       |
| R6-167-C-Z1a  | 06/30/10    | 0-0.5                       | 64,600                       |
| R6-167-C-Comp | 06/30/10    | 0-1.3                       | 72,500                       |
| R6-168-C-Z1a  | 06/30/10    | 0-0.5                       | 51,100                       |
| R6-168-C-Comp | 06/30/10    | 0-1.3                       | 35,800                       |
| R6-169-C-Z1a  | 06/28/10    | 0-0.5                       | 77,200                       |
| R6-169-C-Comp | 06/28/10    | 0-1.4                       | 84,800                       |
| R6-170-C-Z1a  | 06/25/10    | 0-0.5                       | 56,900                       |
| R6-170-C-Comp | 06/25/10    | 0-1.5                       | 74,300                       |
| R6-171-C-Z1a  | 06/25/10    | 0-0.5                       | 53,500                       |
| R6-171-C-Comp | 06/25/10    | 0-1.2                       | 80,100                       |

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID   | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|-------------|-------------|-----------------------------|------------------------------|
| R7-068-C    | 11/25/09    | 0-2.1                       | 79,000                       |
| R7-068-CR   | 11/25/09    | 0-2.1                       | 109,000                      |
| R7-069-C    | 11/25/09    | 0-2.4                       | 63,000                       |
| R7-070-C    | 11/25/09    | 0-2.4                       | 54,000                       |
| R7-071-C    | 11/25/09    | 0-1.5                       | 72,000                       |
| R7-072-C    | 11/24/09    | 0-0.8                       | 93,000                       |
| R7-073-C    | 11/24/09    | 0-2.4                       | 103,000                      |
| R7-074-C    | 11/24/09    | 0-2.3                       | 45,000                       |
| R7-075-C    | 11/24/09    | 0-2.1                       | 129,000                      |
| R7-076-C    | 11/24/09    | 0-2                         | 102,000                      |
| R7-077-C    | 11/24/09    | 0-1.2                       | 73,000                       |
| R7-078-C    | 12/02/09    | 0-4                         | 75,000                       |
| R7-079-C    | 12/02/09    | 0-2.4                       | 77,000                       |
| R7-080-C    | 12/02/09    | 0-1.7                       | 41,000                       |
| R7-081-C    | 12/02/09    | 0-1.7                       | 107,000                      |
| R7-082-C    | 11/30/09    | 0-1.6                       | 44,000                       |
| R7-082-CR   | 11/30/09    | 0-1.6                       | 39,000                       |
| R7-083-C    | 11/30/09    | 0-3.3                       | 70,000                       |
| R7-084-C    | 11/30/09    | 0-3.3                       | 26,000                       |
| R7-085-C    | 11/30/09    | 0-1.6                       | 62,000                       |
| R7-086-C    | 11/30/09    | 0-3.2                       | 80,000                       |
| R7-087-C    | 11/30/09    | 0-2.1                       | 64,000                       |
| R7-088-C    | 11/25/09    | 0-1                         | 91,000                       |
| R7-089-C    | 11/25/09    | 0-2.9                       | 68,000                       |
| R7-090-C    | 11/25/09    | 0-3.5                       | 159,000                      |
| R7-091-C    | 11/24/09    | 0-1.4                       | 109,000                      |
| R7-092-C    | 11/24/09    | 0-1                         | 64,000                       |
| R7-093-C    | 11/24/09    | 0-0.9                       | 60,000                       |
| R7-094-C    | 11/23/09    | 0-1                         | 64,000                       |
| R7-095-C    | 11/23/09    | 0-1.3                       | 89,000                       |
| R7-095-CR   | 11/23/09    | 0-1.3                       | 69,000                       |
| R7-096-C    | 11/23/09    | 0-1.3                       | 52,000                       |
| R7-097-C    | 11/23/09    | 0-0.9                       | 51,000                       |
| R7-098-C    | 11/23/09    | 0-1.9                       | 37,000                       |
| R7-099-C    | 11/23/09    | 0-1.3                       | 72,000                       |
| R7-100-C    | 11/23/09    | 0-1.2                       | 20,000                       |
| R7-101-C    | 11/30/09    | 0-0.5                       | 75,000                       |
| R7-102-C    | 11/30/09    | 0-1.5                       | 86,000                       |
| R7-103-C    | 11/30/09    | 0-2.3                       | 118,000                      |
| R7-104-C    | 12/02/09    | 0-1                         | 65,000                       |
| R7-105-C    | 11/30/09    | 0-1.4                       | 87,000                       |
| R7-106-C    | 11/30/09    | 0-0.5                       | 32,000                       |
| R7-118-W    | 11/30/09    | 0-0.5                       | 61,000                       |
| R7-120-T-Z1 | 11/24/09    | 0-0.5                       | 20,000                       |
| R7-120-T-Z2 | 11/24/09    | 0.5-2.1                     | 15,000                       |
| R7-121-T-Z1 | 12/02/09    | 0-0.5                       | 28,000                       |
| R7-122-T-Z1 | 11/25/09    | 0-0.5                       | 11,000                       |
| R7-122-T-Z2 | 11/25/09    | 0.5-1                       | 23,000                       |
| R7-123-T-Z1 | 11/23/09    | 0-0.5                       | 30,000                       |
| R7-123-T-Z2 | 11/23/09    | 0.5-1                       | 74,000                       |
| R7-124-T-Z1 | 11/23/09    | 0-0.4                       | 17,000                       |
| R7-125-T-Z1 | 11/30/09    | 0-0.5                       | 112,000                      |
| R7-125-T-Z2 | 11/30/09    | 0.5-0.8                     | 88,000                       |
| R7-130-H    | 11/30/09    | 0-0.5                       | 35,000                       |
| R7-131-H    | 11/30/09    | 0-0.5                       | 60,000                       |
| R7-132-H    | 11/25/09    | 0-0.5                       | 97,000                       |
| R7-133-H    | 11/24/09    | 0-0.5                       | 46,000                       |

| Sample ID     | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|---------------|-------------|-----------------------------|------------------------------|
| R7-134-H      | 11/23/09    | 0-0.5                       | 71,000                       |
| R7-172-C-Z1a  | 06/25/10    | 0-0.5                       | 58,600                       |
| R7-172-C-Comf | 06/25/10    | 0-0.9                       | 42,900                       |
| R7-173-C-Z1a  | 06/25/10    | 0-0.5                       | 51,200                       |
| R7-173-C-Comf | 06/25/10    | 0-1.1                       | 60,500                       |
| R7-174-C-Z1a  | 06/25/10    | 0-0.5                       | 82,200                       |
| R7-174-C-Comf | 06/25/10    | 0-1.2                       | 68,700                       |
| R7-175-C-Z1a  | 06/24/10    | 0-0.5                       | 73,200                       |
| R7-175-C-Z1   | 06/24/10    | 0.5-1.4                     | 45,600                       |
| R7-176-C-Z1a  | 06/24/10    | 0-0.5                       | 106,000                      |
| R7-176-C-Comf | 06/24/10    | 0-0.9                       | 108,000                      |
| R7-177-C-Z1a  | 06/24/10    | 0-0.5                       | 65,500                       |
| R7-177-C-Z1   | 06/24/10    | 0.5-1.1                     | 67,000                       |
| R7-177-CR     | 06/24/10    | 0.5-1.1                     | 62,100                       |
| R7-178-C-Z1a  | 06/24/10    | 0-0.5                       | 76,300                       |
| R7-178-C-Z1   | 06/24/10    | 0.5-1.2                     | 130,000                      |
| R7-179-C-Z1a  | 06/23/10    | 0-0.5                       | 68,900                       |
| R7-179-C-Comf | 06/23/10    | 0-0.7                       | 41,400                       |
| R7-180-C-Z1a  | 06/23/10    | 0-0.5                       | 65,300                       |
| R7-180-C-Comf | 06/23/10    | 0-1.1                       | 64,500                       |
| R7-181-C-Z1a  | 07/01/10    | 0-0.5                       | 48,800                       |
| R7-181-C-Comf | 07/01/10    | 0-1.3                       | 16,000                       |
| R7-182-C-COM  | 07/01/10    | 0-0.8                       | 19,200                       |
| R7-183-C-Z1a  | 07/01/10    | 0-0.5                       | 68,100                       |
| R7-183-C-Comf | 07/01/10    | 0-1.3                       | 131,000                      |
| R7-184-C-Comf | 06/30/10    | 0-0.75                      | 101,000                      |
| R7-185-C-Z1a  | 06/30/10    | 0-0.5                       | 76,100                       |
| R7-185-C-Comf | 06/30/10    | 0-0.7                       | 77,100                       |
| R7-186-C-Z1a  | 06/30/10    | 0-0.5                       | 46,600                       |
| R7-186-C-Comf | 06/30/10    | 0-0.7                       | 50,800                       |
| R7-187-C-Z1a  | 06/30/10    | 0-0.5                       | 49,100                       |
| R7-187-C-Comf | 06/30/10    | 0-0.95                      | 53,700                       |
| R7-188-C-Z1a  | 06/30/10    | 0-0.5                       | 47,600                       |
| R7-188-C-Z1   | 06/30/10    | 0.4-1.1                     | 48,500                       |
| R7-189-C-Z1a  | 06/30/10    | 0-0.5                       | 97,900                       |
| R7-189-C-Comf | 06/30/10    | 0-1.2                       | 76,200                       |
| R7-189-CR     | 06/30/10    | 0-1.2                       | 64,600                       |
| R7-190-C-Comf | 06/30/10    | 0-0.7                       | 63,400                       |
| R7-191-C-Z1a  | 06/29/10    | 0-0.5                       | 63,400                       |
| R7-191-C-Comf | 06/29/10    | 0-0.9                       | 80,700                       |
| R7-192-C-Z1a  | 06/29/10    | 0-0.3                       | 54,500                       |
| R7-193-C-Z1a  | 06/29/10    | 0-0.5                       | 79,400                       |
| R7-193-C-Comf | 06/29/10    | 0-0.8                       | 95,000                       |
| R7-194-C-Comf | 06/29/10    | 0-0.6                       | 84,700                       |
| R7-195-C-Comf | 06/29/10    | 0-0                         | 66,600                       |
| R7-196-C-Z1a  | 06/29/10    | 0-0.5                       | 58,000                       |
| R7-196-C-Comf | 06/29/10    | 0-1.3                       | 77,800                       |
| R7-197-C-Z1a  | 06/28/10    | 0-0.5                       | 90,600                       |
| R7-197-C-Comf | 06/28/10    | 0-1.2                       | 99,700                       |
| R7-197-CR     | 06/28/10    | 0-1.2                       | 92,100                       |
| R7-198-C-Z1a  | 06/28/10    | 0-0.5                       | 57,000                       |
| R7-198-C-Comf | 06/28/10    | 0-0.9                       | 57,500                       |
| R7-199-C-Z1a  | 06/28/10    | 0-0.5                       | 67,100                       |
| R7-199-C-Comf | 06/28/10    | 0-1.5                       | 102,000                      |
| R7-200-C-Z1a  | 06/28/10    | 0-0.5                       | 66,900                       |
| R7-200-C-Comf | 06/28/10    | 0-3                         | 50,600                       |
| R7-201-T-Z1a  | 06/25/10    | 0-0.5                       | 34,200                       |

Table 4-7  
Summary of Results for Total Organic Carbon Analysis

| Sample ID     | Sample Date | Sample Depth Range (ft BGS) | Total Organic Carbon (mg/kg) |
|---------------|-------------|-----------------------------|------------------------------|
| R7-201-T-Comp | 06/25/10    | 0-1.1                       | 28,400                       |
| R7-202-T-Z1a  | 06/29/10    | 0-0.5                       | 45,900                       |
| R7-202-T-Comp | 06/29/10    | 0-0.9                       | 30,600                       |
| R7-203-T-Z1a  | 06/29/10    | 0-0.5                       | 50,200                       |
| R7-203-T-Comp | 06/29/10    | 0-0.7                       | 57,300                       |
| R7-204-T-Z1a  | 06/29/10    | 0-0.3                       | 52,300                       |
| R7-205-T-Z1a  | 06/29/10    | 0-0.5                       | 45,200                       |
| R7-205-T-Comp | 06/29/10    | 0-0.8                       | 29,600                       |

Key:

- C = Hand-core creek location/sample.
- Comp = Hand-core creek composite sample.
- ft = Feet.
- H = Historical channel location/sample.
- J = Estimated at the concentration listed.
- mg/Kg = Milligrams per kilogram.
- P = Ponar creek location/sample.
- T = Tributary location/sample.
- U = Non-detect.
- V = Vibracore creek location/sample.
- W = Wetland location/sample.
- Z = Sample depth interval consecutively numbered.





Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID                   | R2-001-V-Z1P2 | R2-002-V-Z1P2 | R2-003-V-Z1P2 | R2-004-V-Z1P2 | R2-005-V-Z1P2 | R2-005-V-Z4 | R2-006-V-Z1P2 | R2-007-V-Z1P2 | R2-008-V-Z1P2 |
|--------------------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|-------------|---------------|---------------|---------------|
|                          | Sample Date                 | 5/24/2010     | 5/18/2010     | 5/24/2010     | 5/24/2010     | 5/19/2010     | 5/19/2010   | 5/24/2010     | 5/25/2010     | 5/19/2010     |
|                          | Sample Depth Range (ft BGS) | 0-1           | 0-1           | 0-1           | 0-1           | 0-1           | 3-4         | 0-1           | 0-1           | 0-1           |
| PCB-44/47/65             |                             | 0.12 HM       | 0.15 HM       | 0.115 HM      | 0.111 C       | 0.113 C       | 0.689 C     | 0.0851 HM     | 0.147 C       | 0.126 HM      |
| PCB-45/51                |                             | 0.0228 HM     | 0.0282 HM     | 0.0216 HM     | 0.0207 C      | 0.0211 C      | 0.126 C     | 0.016 HM      | 0.0274 C      | 0.0225 HM     |
| PCB-46                   |                             | 0.00692 HM    | 0.00856 HM    | 0.00651 HM    | 0.00639       | 0.00659       | 0.0443      | 0.00506 HM    | 0.00817       | 0.0067 HM     |
| PCB-47                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-48                   |                             | 0.0107 HM     | 0.0131 HM     | 0.0102 HM     | 0.0097        | 0.011         | 0.161       | 0.00771 HM    | 0.0131        | 0.0112 HM     |
| PCB-49/69                |                             | 0.0926 HM     | 0.116 HM      | 0.0895 HM     | 0.0861 C      | 0.0869 C      | 0.436 C     | 0.0663 HM     | 0.115 C       | 0.0955 HM     |
| PCB-50/53                |                             | 0.0228 HM     | 0.0286 HM     | 0.0217 HM     | 0.0208 C      | 0.0205 C      | 0.0925 C    | 0.0162 HM     | 0.0276 C      | 0.0215 HM     |
| PCB-51                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-52                   |                             | 0.14 HM       | 0.177 HM      | 0.136 HM      | 0.132         | 0.136         | 0.761       | 0.101 HM      | 0.176         | 0.15 HM       |
| PCB-53                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-54                   |                             | 0.000875 HM   | 0.00102 HM    | 0.000816 HM   | 0.000703      | 0.000546      | 0.00157     | 0.000643 HM   | 0.00106       | 0.000831 HM   |
| PCB-55                   |                             | 0.00066 UH    | 0.000664 UH   | 0.000695 UH   | 0.000619 U    | 0.000525 U    | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH   |
| PCB-56                   |                             | 0.029 HM      | 0.0363 HM     | 0.0274 HM     | 0.0266        | 0.0241        | 0.309       | 0.0209 HM     | 0.0366        | 0.0316 HM     |
| PCB-57                   |                             | 0.00129 HM    | 0.00174 HM    | 0.00131 HM    | 0.00119       | 0.00109       | 0.00286     | 0.000855 HM   | 0.00182       | 0.00132 HM    |
| PCB-58                   |                             | 0.00066 UH    | 0.000664 UH   | 0.000695 UH   | 0.000619 U    | 0.000525 U    | 0.00196     | 0.000597 UH   | 0.00054 U     | 0.000611 UH   |
| PCB-59/62/75             |                             | 0.00921 HM    | 0.0111 HM     | 0.0087 HM     | 0.00842 C     | 0.00894 C     | 0.0566 C    | 0.00632 HM    | 0.0114 C      | 0.00991 HM    |
| PCB-60                   |                             | 0.00819 HM    | 0.0104 HM     | 0.00778 HM    | 0.00719       | 0.00424       | 0.0584      | 0.0062 HM     | 0.00949       | 0.00832 HM    |
| PCB-61/70/74/76          |                             | 0.106 HM      | 0.135 HM      | 0.102 HM      | 0.0977 C      | 0.0894 C      | 1.07 C      | 0.0776 HM     | 0.132 C       | 0.111 HM      |
| PCB-62                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-63                   |                             | 0.00494 HM    | 0.00607 HM    | 0.00462 HM    | 0.00426       | 0.00388       | 0.0264      | 0.00342 HM    | 0.0058        | 0.00506 HM    |
| PCB-64                   |                             | 0.0444 HM     | 0.0556 HM     | 0.0425 HM     | 0.0406        | 0.0433        | 0.302       | 0.0315 HM     | 0.0539        | 0.046 HM      |
| PCB-65                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-66                   |                             | 0.0735 HM     | 0.0918 HM     | 0.0704 HM     | 0.0674        | 0.0627        | 0.656       | 0.0535 HM     | 0.0919        | 0.0788 HM     |
| PCB-67                   |                             | 0.00211 HM    | 0.00264 HM    | 0.00202 HM    | 0.00191       | 0.00193       | 0.0175      | 0.00141 HM    | 0.00255       | 0.00221 HM    |
| PCB-68                   |                             | 0.00175 HM    | 0.00206 HM    | 0.00163 HM    | 0.00159       | 0.00129       | 0.00304     | 0.0012 HM     | 0.00207       | 0.0017 HM     |
| PCB-69                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-70                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-71                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-72                   |                             | 0.00241 HM    | 0.00282 HM    | 0.00228 HM    | 0.00212       | 0.00191       | 0.00552     | 0.00168 HM    | 0.003         | 0.00244 HM    |
| PCB-73                   |                             | 0.00066 UH    | 0.000664 UH   | 0.000695 UH   | 0.000619 U    | 0.000525 U    | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH   |
| PCB-74                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-75                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-76                   |                             | 0 HM          | 0 HM          | 0 HM          | 0 C           | 0 CE          | 0 CE        | 0 HM          | 0 C           | 0 HM          |
| PCB-77                   |                             | 0.00769 HM    | 0.00954 HM    | 0.00707 HM    | 0.00668       | 0.00583       | 0.0497      | 0.0056 HM     | 0.00909       | 0.00772 HM    |
| PCB-78                   |                             | 0.00066 UH    | 0.000664 UH   | 0.000695 UH   | 0.000619 U    | 0.000525 U    | 0.00103     | 0.000597 UH   | 0.00054 U     | 0.000611 UH   |
| PCB-79                   |                             | 0.000992 HM   | 0.00117 HM    | 0.00093 HM    | 0.000813      | 0.000635      | 0.001 U     | 0.000648 HM   | 0.00111       | 0.000616 HM   |
| PCB-80                   |                             | 0.00066 UH    | 0.000664 UH   | 0.000695 UH   | 0.000619 U    | 0.000525 U    | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH   |
| PCB-81                   |                             | 0.000868 HM   | 0.00108 HM    | 0.000695 UH   | 0.000619 U    | 0.000525 U    | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH   |
| PCB-82                   |                             | 0.0094 HM     | 0.000664 UH   | 0.0101 HM     | 0.0093        | 0.00619       | 0.0456      | 0.0079 HM     | 0.0115        | 0.0112 HM     |
| PCB-83/99                |                             | 0.00491 HM    | 0.0065 HM     | 0.0047 HM     | 0.00477       | 0.00396       | 0.0206      | 0.0035 HM     | 0.0057        | 0.00646 HM    |
| PCB-84                   |                             | 0.0283 HM     | 0.0355 HM     | 0.027 HM      | 0.0257        | 0.0232        | 0.111       | 0.0207 HM     | 0.0344        | 0.0288 HM     |
| PCB-85/116/117           |                             | 0.0161 HM     | 0.0197 HM     | 0.0155 HM     | 0.0144 C      | 0.00913 C     | 0.0559 C    | 0.0118 HM     | 0.0199 C      | 0.0169 HM     |
| PCB-86/87/97/108/119/125 |                             | 0.0475 HM     | 0.0604 HM     | 0.0458 HM     | 0.0427 C      | 0.0309 C      | 0.212 C     | 0.0356 HM     | 0.0587 C      | 0.0504 HM     |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte              | Sample ID                   | R2-001-V-Z1P2 | R2-002-V-Z1P | R2-003-V-Z1P2 | R2-004-V-Z1P2 | R2-005-V-Z1P | R2-005-V-Z4 | R2-006-V-Z1P2 | R2-007-V-Z1P2 | R2-008-V-Z1P |
|----------------------|-----------------------------|---------------|--------------|---------------|---------------|--------------|-------------|---------------|---------------|--------------|
|                      | Sample Date                 | 5/24/2010     | 5/18/2010    | 5/24/2010     | 5/24/2010     | 5/19/2010    | 5/19/2010   | 5/24/2010     | 5/25/2010     | 5/19/2010    |
|                      | Sample Depth Range (ft BGS) | 0-1           | 0-1          | 0-1           | 0-1           | 0-1          | 3-4         | 0-1           | 0-1           | 0-1          |
| PCB-87               |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-88/91            |                             | 0.0182 HM     | 0.0232 HM    | 0.0173 HM     | 0.0166 C      | 0.0147 C     | 0.0584 C    | 0.013 HM      | 0.0226 C      | 0.0185 HM    |
| PCB-89               |                             | 0.00209 HM    | 0.0027 HM    | 0.00194 HM    | 0.0019        | 0.00125      | 0.00928     | 0.00146 HM    | 0.00247       | 0.00203 HM   |
| PCB-90/101/113       |                             | 0.0624 HM     | 0.0781 HM    | 0.06 HM       | 0.0561 C      | 0.0458 C     | 0.288 C     | 0.047 HM      | 0.0783 C      | 0.0653 HM    |
| PCB-91               |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-92               |                             | 0 HM          | 0 HM         | 0 HM          | 0             | 0            | 0           | 0 HM          | 0             | 0 HM         |
| PCB-93/95/98/100/102 |                             | 0.0171 HM     | 0.0215 HM    | 0.0161 HM     | 0.0152 C      | 0.0127 C     | 0.0559 CU   | 0.0125 HM     | 0.0211 C      | 0.0178 HM    |
| PCB-94               |                             | 0.00264 HM    | 0.00265 HM   | 0.00211 HM    | 0.00207       | 0.00165      | 0.002       | 0.00174 HM    | 0.00285       | 0.00225 HM   |
| PCB-95               |                             | 0.00144 HM    | 0.00173 HM   | 0.00131 HM    | 0.00123       | 0.00102      | 0.00289     | 0.001 HM      | 0.00173       | 0.00134 HM   |
| PCB-96               |                             | 0.0599 HM     | 0.0751 HM    | 0.0573 HM     | 0.0551        | 0.0497       | 0.245       | 0.0437 HM     | 0.0736        | 0.06 HM      |
| PCB-97               |                             | 0.00135 HM    | 0.00169 HM   | 0.00129 HM    | 0.00121 C     | 0.00109 CE   | 0.00461 CE  | 0.000932 HM   | 0.00161 C     | 0.00131 HM   |
| PCB-98               |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 C          | 0 C         | 0 HM          | 0 C           | 0 HM         |
| PCB-99               |                             | 0.0059 HM     | 0.00789 HM   | 0.00587 HM    | 0.00564       | 0.00499      | 0.0195      | 0.00453 HM    | 0.00763       | 0.00608 HM   |
| PCB-100              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-101              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-102              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-103              |                             | 0.00126 HM    | 0.00144 HM   | 0.00117 HM    | 0.00111       | 0.00103      | 0.0032      | 0.000932 HM   | 0.00148       | 0.00119 HM   |
| PCB-104              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-105              |                             | 0.0281 HM     | 0.0357 HM    | 0.0267 HM     | 0.0247        | 0.0145       | 0.107       | 0.0217 HM     | 0.0344        | 0.0293 HM    |
| PCB-106              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-107/124          |                             | 0.00526 HM    | 0.00701 HM   | 0.00474 HM    | 0.00474       | 0.0034       | 0.0205      | 0.00399 HM    | 0.00636       | 0.00546 HM   |
| PCB-108              |                             | 0.00181 HM    | 0.00223 HM   | 0.00167 HM    | 0.00154 C     | 0.00105 CU   | 0.00725 C   | 0.00134 HM    | 0.00213 C     | 0.00195 HM   |
| PCB-109              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-110/115          |                             | 0.0934 HM     | 0.119 HM     | 0.0917 HM     | 0.0854 C      | 0.0718 C     | 0.344 C     | 0.0712 HM     | 0.116 C       | 0.101 HM     |
| PCB-111              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-112              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-113              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-114              |                             | 0.0018 HM     | 0.00223 HM   | 0.00169 HM    | 0.0016        | 0.000887     | 0.00732     | 0.00128 HM    | 0.00227       | 0.00186 HM   |
| PCB-115              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-117              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-118              |                             | 0.0659 HM     | 0.0817 HM    | 0.0617 HM     | 0.058         | 0.0416       | 0.283       | 0.0497 HM     | 0.0821        | 0.0701 HM    |
| PCB-119              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-120              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-121              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-122              |                             | 0.000753 HM   | 0.000957 HM  | 0.00075 HM    | 0.000641      | 0.000525 U   | 0.00241     | 0.000597 UH   | 0.00095       | 0.00092 HM   |
| PCB-123              |                             | 0.00143 HM    | 0.00122 HM   | 0.00136 HM    | 0.00103       | 0.000525 U   | 0.00586     | 0.000936 HM   | 0.00148       | 0.00157 HM   |
| PCB-124              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-125              |                             | 0 HM          | 0 HM         | 0 HM          | 0 C           | 0 CE         | 0 CE        | 0 HM          | 0 C           | 0 HM         |
| PCB-126              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-127              |                             | 0.00066 UH    | 0.000664 UH  | 0.000695 UH   | 0.000619 U    | 0.000525 U   | 0.001 U     | 0.000597 UH   | 0.00054 U     | 0.000611 UH  |
| PCB-128/166          |                             | 0.00595 HM    | 0.00741 HM   | 0.00555 HM    | 0.00506 C     | 0.00353 C    | 0.0239 C    | 0.00464 HM    | 0.00763 C     | 0.00652 HM   |
| PCB-129/138/160/163  |                             | 0.0352 HM     | 0.044 HM     | 0.0333 HM     | 0.0234 C      | 0.0208 C     | 0.151 C     | 0.0273 HM     | 0.0449 C      | 0.0398 HM    |
| PCB-130              |                             | 0.00229 HM    | 0.00295 HM   | 0.00225 HM    | 0.00199       | 0.00132      | 0.0101      | 0.00176 HM    | 0.00292       | 0.0025 HM    |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte             | Sample ID   |             | Sample Date |            | Sample Depth Range (ft BGS) |           | R2-001-V-Z1P2 |            | R2-002-V-Z1P2 |             | R2-003-V-Z1P2 |     | R2-004-V-Z1P2 |     | R2-005-V-Z1P2 |     | R2-006-V-Z1P2 |     | R2-007-V-Z1P2 |     | R2-008-V-Z1P2 |     |
|---------------------|-------------|-------------|-------------|------------|-----------------------------|-----------|---------------|------------|---------------|-------------|---------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|-----|
|                     | Sample Date |             | Sample Date |            | Sample Depth Range (ft BGS) |           | R2-001-V-Z1P2 |            | R2-002-V-Z1P2 |             | R2-003-V-Z1P2 |     | R2-004-V-Z1P2 |     | R2-005-V-Z1P2 |     | R2-006-V-Z1P2 |     | R2-007-V-Z1P2 |     | R2-008-V-Z1P2 |     |
|                     | 5/24/2010   | 0-1         | 5/18/2010   | 0-1        | 5/24/2010                   | 0-1       | 5/24/2010     | 0-1        | 5/24/2010     | 0-1         | 5/24/2010     | 0-1 | 5/24/2010     | 0-1 | 5/19/2010     | 0-1 | 5/24/2010     | 0-1 | 5/25/2010     | 0-1 | 5/19/2010     | 0-1 |
| PCB-174             | 0.00568 HM  | 0.00726 HM  | 0.0054 HM   | 0.00481    | 0.00345                     | 0.0252    | 0.00441 HM    | 0.00759    | 0.00611 UH    | 0.000619 HM |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-175             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.00102   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-176             | 0.000736 HM | 0.00098 HM  | 0.000745 HM | 0.00068    | 0.000525 U                  | 0.00355   | 0.000597 UH   | 0.00097    | 0.000833 HM   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-177             | 0.00364 HM  | 0.00463 HM  | 0.00341 HM  | 0.00315    | 0.00212                     | 0.0141    | 0.00286 HM    | 0.00461    | 0.00392 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-178             | 0.00167 HM  | 0.00213 HM  | 0.00167 HM  | 0.00146    | 0.00116                     | 0.00544   | 0.00126 HM    | 0.00228    | 0.00193 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-179             | 0.00289 HM  | 0.00368 HM  | 0.00272 HM  | 0.0025     | 0.00184                     | 0.0115    | 0.00227 HM    | 0.00372    | 0.00317 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-180/193         | 0.0123 HM   | 0.0155 HM   | 0.0113 HM   | 0.0105 C   | 0.00718 C                   | 0.0505 C  | 0.00974 HM    | 0.0162 C   | 0.0144 HM     |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-181             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-182             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-183/185         | 0.00388 HM  | 0.00485 HM  | 0.00367 HM  | 0.0034 C   | 0.00242 C                   | 0.0169 C  | 0.00309 HM    | 0.00515 C  | 0.00426 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-184             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-185             | 0 HM        | 0 HM        | 0 HM        | 0 C        | 0 CE                        | 0 CE      | 0 HM          | 0 C        | 0 HM          |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-186             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-187             | 0.00837 HM  | 0.0108 HM   | 0.0081 HM   | 0.00744    | 0.00532                     | 0.0304    | 0.00662 HM    | 0.011      | 0.00962 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-188             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-189             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-190             | 0.0109 HM   | 0.00134 HM  | 0.00098 HM  | 0.000966   | 0.00062                     | 0.00418   | 0.000847 HM   | 0.00135    | 0.00125 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-191             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-192             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-193             | 0 HM        | 0 HM        | 0 HM        | 0 C        | 0 CE                        | 0 CE      | 0 HM          | 0 C        | 0 HM          |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-194             | 0.00351 HM  | 0.00446 HM  | 0.00339 HM  | 0.00309    | 0.00196                     | 0.0108    | 0.00287 HM    | 0.00463    | 0.00404 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-195             | 0.00133 HM  | 0.00158 HM  | 0.00117 HM  | 0.00117    | 0.000728                    | 0.00382   | 0.00107 HM    | 0.00168    | 0.00148 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-196             | 0.00197 HM  | 0.00236 HM  | 0.00184 HM  | 0.00168    | 0.00112                     | 0.00658   | 0.00156 HM    | 0.00251    | 0.0021 HM     |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-197/200         | 0.00132 UH  | 0.00133 UH  | 0.00139 UH  | 0.00124 CU | 0.00105 CU                  | 0.00215 C | 0.00119 UH    | 0.00109 CU | 0.00122 UH    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-198/199         | 0.00528 HM  | 0.0066 HM   | 0.00493 HM  | 0.00448 C  | 0.00311 C                   | 0.0173 C  | 0.00421 HM    | 0.00679 C  | 0.00572 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-199             | 0 HM        | 0 HM        | 0 HM        | 0 C        | 0 CE                        | 0 CE      | 0 HM          | 0 C        | 0 HM          |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-200             | 0 HM        | 0 HM        | 0 HM        | 0 C        | 0 CE                        | 0 CE      | 0 HM          | 0 C        | 0 HM          |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-201             | 0.00066 UH  | 0.000779 HM | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.002     | 0.000597 UH   | 0.0008     | 0.000646 HM   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-202             | 0.00131 HM  | 0.00156 HM  | 0.0012 HM   | 0.0011     | 0.000786                    | 0.0041    | 0.000976 HM   | 0.00164    | 0.00138 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-203             | 0.00281 HM  | 0.00357 HM  | 0.00264 HM  | 0.00252    | 0.00175                     | 0.00944   | 0.00231 HM    | 0.00372    | 0.00318 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-204             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-205             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.001 U   | 0.000597 UH   | 0.00054 U  | 0.000611 UH   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-206             | 0.00645 HM  | 0.0079 HM   | 0.00605 HM  | 0.00545    | 0.00513                     | 0.0326    | 0.0052 HM     | 0.0082     | 0.00716 HM    |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-207             | 0.00066 UH  | 0.000664 UH | 0.000695 UH | 0.000619 U | 0.000525 U                  | 0.00294   | 0.000597 UH   | 0.00079    | 0.000617 HM   |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-208             | 0.00262 HM  | 0.00331 HM  | 0.00248 HM  | 0.00233    | 0.00226                     | 0.0149    | 0.002 HM      | 0.00349    | 0.0029 HM     |             |               |     |               |     |               |     |               |     |               |     |               |     |
| PCB-209             | 0.0118 HM   | 0.0148 HM   | 0.00993 HM  | 0.00943    | 0.012                       | 0.108     | 0.00917 HM    | 0.0149     | 0.0126 HM     |             |               |     |               |     |               |     |               |     |               |     |               |     |
| TOTAL PCB CONGENERS | 1.95 HM     | 2.42 HM     | 1.85 HM     | 1.76       | 1.67                        | 12.8      | 1.42 HM       | 2.4        | 2.06 HM       |             |               |     |               |     |               |     |               |     |               |     |               |     |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte      | Sample ID     |             | Sample Date |            | Sample Depth Range (ft BGS) |            | PCB Congeners by HRGC/HRMS (mg/kg) |           |             |             |             |             |             |             |             |             |             |             |             |             |  |  |  |
|--------------|---------------|-------------|-------------|------------|-----------------------------|------------|------------------------------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|--|--|
|              | R2-009-V-Z1P2 |             | R2-010-V-Z1 |            | R2-011-V-Z1                 |            | R2-011-V-Z2                        |           | R2-011-V-Z3 |             | R2-011-V-Z4 |             | R2-011-V-Z5 |             | R2-011-V-Z6 |             | R2-011-V-Z7 |             | R2-011-V-Z8 |             |  |  |  |
|              | 5/25/2010     | 0-1         | 5/25/2010   | 0-1        | 5/25/2010                   | 0-1        | 5/25/2010                          | 1-2       | 5/25/2010   | 2-3         | 5/25/2010   | 3-4         | 5/25/2010   | 4-6         | 5/25/2010   | 6-8         | 5/25/2010   | 8-10        | 5/25/2010   | 10-11.5     |  |  |  |
| PCB-1        | 0.00153 HM    | 0.00157 HM  | 0.00172     | 0.00329    | 0.00357                     | 0.00277    | 0.0219                             | 0.00715   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-2        | 0.000672 UH   | 0.000579 UH | 0.0004      | 0.000673   | 0.00093                     | 0.000905   | 0.00356                            | 0.00107   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-3        | 0.0025 HM     | 0.00297 HM  | 0.00266     | 0.00324    | 0.0042                      | 0.00514    | 0.0186                             | 0.00068   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-4        | 0.0154 HM     | 0.0167 HM   | 0.0186      | 0.0283     | 0.0447                      | 0.0377     | 0.183                              | 0.0228    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-5        | 0.000672 UH   | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00244 U                          | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-6        | 0.00753 HM    | 0.00867 HM  | 0.00789     | 0.0142     | 0.0229                      | 0.0199     | 0.0867                             | 0.0094    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-7        | 0.000714 HM   | 0.00102 HM  | 0.000902    | 0.00184    | 0.00415                     | 0.00265    | 0.0147                             | 0.00205   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-8        | 0.00824 HM    | 0.0102 HM   | 0.00945     | 0.0362     | 0.0547                      | 0.0315     | 0.383                              | 0.0415    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-9        | 0.000927 HM   | 0.00106 HM  | 0.00101     | 0.00244    | 0.00497                     | 0.00288    | 0.022                              | 0.00273   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-10       | 0.00117 HM    | 0.000892 HM | 0.000681    | 0.00151    | 0.00196                     | 0.00181    | 0.00682                            | 0.00095   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-11       | 0.0336 UH     | 0.0289 UH   | 0.0132 U    | 0.0124 U   | 0.0191 U                    | 0.0214 U   | 0.122 U                            | 0.0415 U  | 0.041 U     | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    |  |  |  |
| PCB-12/13    | 0.00653 HM    | 0.0065 HM   | 0.00708 C   | 0.00637 C  | 0.0103 C                    | 0.0104 C   | 0.0223 C                           | 0.00403 C | 0.00164 CU  | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU |  |  |  |
| PCB-13       | 0 HM          | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE                               | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |  |  |  |
| PCB-14       | 0.000672 UH   | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00244 U                          | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-15       | 0.0296 HM     | 0.0328 HM   | 0.0378      | 0.047      | 0.0685                      | 0.0728     | 0.249                              | 0.0317    | 0.0041 U    | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   |  |  |  |
| PCB-16       | 0.00695 HM    | 0.00838 HM  | 0.00994     | 0.0251     | 0.0892                      | 0.0536     | 0.397                              | 0.0476    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-17       | 0.0435 HM     | 0.049 HM    | 0.0469      | 0.062      | 0.157                       | 0.12       | 0.63                               | 0.084     | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-18/30    | 0.0334 HM     | 0.0384 HM   | 0.0368 C    | 0.0717 C   | 0.245 C                     | 0.163 C    | 1.18 C                             | 0.147 C   | 0.00164 CU  | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU |  |  |  |
| PCB-19       | 0.014 HM      | 0.0159 HM   | 0.0162      | 0.0144     | 0.0308                      | 0.0265     | 0.128                              | 0.0128    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-20/28    | 0.0806 HM     | 0.0939 HM   | 0.0866 C    | 0.179 C    | 0.451 C                     | 0.32 C     | 1.79 C                             | 0.273 C   | 0.0082 CU   | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  |  |  |  |
| PCB-21/33    | 0.0125 HM     | 0.0172 HM   | 0.0137 C    | 0.0583 C   | 0.149 C                     | 0.0821 C   | 0.886 C                            | 0.103 C   | 0.0082 CU   | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  | 0.00276 CU  |  |  |  |
| PCB-22       | 0.0128 HM     | 0.0152 HM   | 0.0145      | 0.0434     | 0.113                       | 0.0692     | 0.559                              | 0.0703    | 0.0041 U    | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   |  |  |  |
| PCB-23       | 0.000672 UH   | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00277                            | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-24       | 0.000672 UH   | 0.00626 HM  | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00244 U                          | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-25       | 0.0398 HM     | 0.044 HM    | 0.0393      | 0.045      | 0.067                       | 0.082      | 0.139                              | 0.0162    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-26/29    | 0.0613 HM     | 0.0671 HM   | 0.0626 C    | 0.0736 C   | 0.12 C                      | 0.134 C    | 0.303 C                            | 0.0345 C  | 0.00164 CU  | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU |  |  |  |
| PCB-27       | 0.019 HM      | 0.0208 HM   | 0.0192      | 0.0175     | 0.0273                      | 0.0285     | 0.117                              | 0.0125    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-28       | 0 HM          | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE                               | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |  |  |  |
| PCB-30       | 0 HM          | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE                               | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |  |  |  |
| PCB-31       | 0.0871 HM     | 0.0989 HM   | 0.0905      | 0.161      | 0.363                       | 0.274      | 1.47                               | 0.203     | 0.0041 U    | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   |  |  |  |
| PCB-32       | 0.0253 HM     | 0.0287 HM   | 0.0277      | 0.0337     | 0.0766                      | 0.0628     | 0.331                              | 0.0409    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-33       | 0 HM          | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE                               | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |  |  |  |
| PCB-34       | 0.00147 HM    | 0.0017 HM   | 0.0016      | 0.00192    | 0.00572                     | 0.00418    | 0.0145                             | 0.00323   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-35       | 0.000672 UH   | 0.000579 UH | 0.000534    | 0.00123    | 0.00384                     | 0.00257    | 0.0133                             | 0.00173   | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-36       | 0.000672 UH   | 0.00162 HM  | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00244 U                          | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-37       | 0.0165 HM     | 0.0195 HM   | 0.0203      | 0.0504     | 0.122                       | 0.0786     | 0.54                               | 0.0715    | 0.0041 U    | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   | 0.00138 U   |  |  |  |
| PCB-38       | 0.000672 UH   | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00244 U                          | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-39       | 0.000672 UH   | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000381 U                  | 0.000427 U | 0.00244 U                          | 0.00083 U | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-40/41/71 | 0.0584 HM     | 0.0659 HM   | 0.0614 C    | 0.0619 C   | 0.177 C                     | 0.152 C    | 0.578 C                            | 0.0925 C  | 0.00138 C   | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU |  |  |  |
| PCB-41       | 0.0336 UH     | 0.0289 UH   | 0.0132 U    | 0.0124 U   | 0.0191 U                    | 0.0214 U   | 0.122 U                            | 0.0415 U  | 0.041 U     | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    | 0.0138 U    |  |  |  |
| PCB-42       | 0.0375 HM     | 0.0433 HM   | 0.0404      | 0.0445     | 0.117                       | 0.104      | 0.337                              | 0.0646    | 0.00164 CU  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |  |  |  |
| PCB-43       | 0.00822 HM    | 0.00849 HM  | 0.0072      | 0.00871    | 0.0222                      | 0.0178     | 0.0962                             | 0.0132    | 0.00082 U   | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |             |             |             |             |             |             |             |  |  |  |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID   |             | Sample Date |            | Sample Depth Range (ft BGS) |            | R2-010-V-Z1 |            | R2-011-V-Z1 |            | R2-011-V-Z2 |           | R2-011-V-Z3 |            | R2-011-V-Z4 |     | R2-011-V-Z5 |     | R2-011-V-Z6 |     | R2-011-V-Z7 |      | R2-011-V-Z8 |         |
|--------------------------|-------------|-------------|-------------|------------|-----------------------------|------------|-------------|------------|-------------|------------|-------------|-----------|-------------|------------|-------------|-----|-------------|-----|-------------|-----|-------------|------|-------------|---------|
|                          | 5/25/2010   | 0-1         | 5/25/2010   | 0-1        | 5/25/2010                   | 0-1        | 5/25/2010   | 0-1        | 5/25/2010   | 1-2        | 5/25/2010   | 1-2       | 5/25/2010   | 2-3        | 5/25/2010   | 3-4 | 5/25/2010   | 4-6 | 5/25/2010   | 6-8 | 5/25/2010   | 8-10 | 5/25/2010   | 10-11.5 |
| PCB-44/47/65             | 0.155 HM    | 0.179 HM    | 0.155 HM    | 0.179 HM   | 0.169 C                     | 0.169 C    | 0.168 C     | 0.168 C    | 0.437 C     | 0.398 C    | 0.398 C     | 1.32 C    | 0.264 C     | 0.00865 C  | 0.000828 CU |     |             |     |             |     |             |      |             |         |
| PCB-45/51                | 0.0278 HM   | 0.0314 HM   | 0.0315 C    | 0.0315 C   | 0.0298 C                    | 0.0298 C   | 0.0298 C    | 0.0298 C   | 0.0887 C    | 0.0754 C   | 0.0754 C    | 0.306 C   | 0.0436 C    | 0.00164 CU | 0.000552 CU |     |             |     |             |     |             |      |             |         |
| PCB-46                   | 0.00852 HM  | 0.00956 HM  | 0.00957     | 0.00957    | 0.00922                     | 0.00922    | 0.029       | 0.029      | 0.029       | 0.0238     | 0.0238      | 0.102     | 0.0149      | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-47                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-48                   | 0.0138 HM   | 0.0159 HM   | 0.0155      | 0.0155     | 0.0208                      | 0.0208     | 0.0843      | 0.0843     | 0.0843      | 0.0547     | 0.0547      | 0.343     | 0.0526      | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-49/69                | 0.118 HM    | 0.135 HM    | 0.126 C     | 0.126 C    | 0.121 C                     | 0.121 C    | 0.277 C     | 0.277 C    | 0.277 C     | 0.268 C    | 0.268 C     | 0.808 C   | 0.182 C     | 0.00885 C  | 0.000552 CU |     |             |     |             |     |             |      |             |         |
| PCB-50/53                | 0.0275 HM   | 0.031 HM    | 0.0312 C    | 0.031 HM   | 0.0273 C                    | 0.0273 C   | 0.0723 C    | 0.0723 C   | 0.0723 C    | 0.0661 C   | 0.0661 C    | 0.224 C   | 0.0343 C    | 0.00164 CU | 0.000552 CU |     |             |     |             |     |             |      |             |         |
| PCB-51                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-52                   | 0.185 HM    | 0.211 HM    | 0.21        | 0.21       | 0.206                       | 0.206      | 0.509       | 0.509      | 0.509       | 0.482      | 0.482       | 1.49      | 0.339       | 0.0183     | 0.000781    |     |             |     |             |     |             |      |             |         |
| PCB-53                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-54                   | 0.00112 HM  | 0.00124 HM  | 0.0014      | 0.0014     | 0.000744                    | 0.000744   | 0.00149     | 0.00149    | 0.00149     | 0.00146    | 0.00146     | 0.00433   | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-55                   | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000264 U | 0.000247 U                  | 0.000247 U | 0.000381 U  | 0.000381 U | 0.000381 U  | 0.000427 U | 0.000427 U  | 0.00244 U | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-56                   | 0.0399 HM   | 0.0463 HM   | 0.0416      | 0.0416     | 0.0474                      | 0.0474     | 0.162       | 0.162      | 0.162       | 0.112      | 0.112       | 0.562     | 0.104       | 0.00206    | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-57                   | 0.00201 HM  | 0.00202 HM  | 0.00183     | 0.00183    | 0.00147                     | 0.00147    | 0.00252     | 0.00252    | 0.00252     | 0.00237    | 0.00237     | 0.00586   | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-58                   | 0.000709 HM | 0.000852 HM | 0.000264 U  | 0.000264 U | 0.000453                    | 0.000453   | 0.000381 U  | 0.000381 U | 0.000381 U  | 0.00141    | 0.00141     | 0.00489   | 0.00109     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-59/62/75             | 0.0122 HM   | 0.0138 HM   | 0.0131 C    | 0.0131 C   | 0.0142 C                    | 0.0142 C   | 0.0394 C    | 0.0394 C   | 0.0394 C    | 0.0342 C   | 0.0342 C    | 0.127 C   | 0.0205 C    | 0.00246 CU | 0.000828 CU |     |             |     |             |     |             |      |             |         |
| PCB-60                   | 0.0116 HM   | 0.0135 HM   | 0.0129      | 0.0129     | 0.0107                      | 0.0107     | 0.0313      | 0.0313     | 0.0313      | 0.0151     | 0.0151      | 0.18      | 0.00482     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-61/70/74/76          | 0.143 HM    | 0.164 HM    | 0.151 C     | 0.151 C    | 0.167 C                     | 0.167 C    | 0.548 C     | 0.548 C    | 0.548 C     | 0.388 C    | 0.388 C     | 1.87 C    | 0.385 C     | 0.0166 C   | 0.0011 CU   |     |             |     |             |     |             |      |             |         |
| PCB-62                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-63                   | 0.00653 HM  | 0.00767 HM  | 0.00702     | 0.00702    | 0.00604                     | 0.00604    | 0.0174      | 0.0174     | 0.0174      | 0.0129     | 0.0129      | 0.0481    | 0.00957     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-64                   | 0.0562 HM   | 0.0645 HM   | 0.0602      | 0.0602     | 0.0672                      | 0.0672     | 0.19        | 0.19       | 0.19        | 0.161      | 0.161       | 0.58      | 0.105       | 0.00226    | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-65                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-66                   | 0.0992 HM   | 0.114 HM    | 0.102       | 0.102      | 0.114                       | 0.114      | 0.345       | 0.345      | 0.345       | 0.257      | 0.257       | 1.14      | 0.247       | 0.00954    | 0.00138 U   |     |             |     |             |     |             |      |             |         |
| PCB-67                   | 0.00287 HM  | 0.00326 HM  | 0.00297     | 0.00297    | 0.00337                     | 0.00337    | 0.0103      | 0.0103     | 0.0103      | 0.00785    | 0.00785     | 0.0357    | 0.00552     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-68                   | 0.00224 HM  | 0.00245 HM  | 0.00239     | 0.00239    | 0.00167                     | 0.00167    | 0.0025      | 0.0025     | 0.0025      | 0.00303    | 0.00303     | 0.00383   | 0.00215     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-69                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-70                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-71                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-72                   | 0.00319 HM  | 0.00341 HM  | 0.00333     | 0.00333    | 0.00263                     | 0.00263    | 0.00434     | 0.00434    | 0.00434     | 0.00518    | 0.00518     | 0.00716   | 0.00374     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-73                   | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000264 U | 0.000247 U                  | 0.000247 U | 0.000381 U  | 0.000381 U | 0.000381 U  | 0.000427 U | 0.000427 U  | 0.00244 U | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-74                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-75                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-76                   | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE       | 0 CE        |     |             |     |             |     |             |      |             |         |
| PCB-77                   | 0.00994 HM  | 0.0112 HM   | 0.0117      | 0.0117     | 0.0115                      | 0.0115     | 0.0345      | 0.0345     | 0.0345      | 0.0256     | 0.0256      | 0.11      | 0.0178      | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-78                   | 0.000672 UH | 0.000579 UH | 0.000515    | 0.000515   | 0.000275                    | 0.000275   | 0.000896    | 0.000896   | 0.000896    | 0.00066    | 0.00066     | 0.00255   | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-79                   | 0.00132 HM  | 0.00142 HM  | 0.00174     | 0.00174    | 0.0011                      | 0.0011     | 0.00316     | 0.00316    | 0.00316     | 0.00263    | 0.00263     | 0.00828   | 0.00253     | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-80                   | 0.000672 UH | 0.000579 UH | 0.000543    | 0.000543   | 0.000247 U                  | 0.000247 U | 0.000803    | 0.000803   | 0.000803    | 0.000764   | 0.000764    | 0.00244 U | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-81                   | 0.000672 UH | 0.00117 HM  | 0.000264 U  | 0.000264 U | 0.000247 U                  | 0.000247 U | 0.000381 U  | 0.000381 U | 0.000381 U  | 0.000429   | 0.000429    | 0.00295   | 0.00083 U   | 0.00082 U  | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-82                   | 0.0141 HM   | 0.0169 HM   | 0.0149      | 0.0149     | 0.0084                      | 0.0084     | 0.0291      | 0.0291     | 0.0291      | 0.022      | 0.022       | 0.0844    | 0.0158      | 0.00157    | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-83/99                | 0.00694 HM  | 0.00753 HM  | 0.00707     | 0.00707    | 0.00419                     | 0.00419    | 0.0125      | 0.0125     | 0.0125      | 0.0105     | 0.0105      | 0.031     | 0.011       | 0.00179    | 0.000276 U  |     |             |     |             |     |             |      |             |         |
| PCB-84                   | 0.035 HM    | 0.0399 HM   | 0.0381      | 0.0381     | 0.0296                      | 0.0296     | 0.0704      | 0.0704     | 0.0704      | 0.0679     | 0.0679      | 0.175     | 0.0581      | 0.00739    | 0.000403    |     |             |     |             |     |             |      |             |         |
| PCB-85/116/117           | 0.0215 HM   | 0.0246 HM   | 0.0232 C    | 0.0232 C   | 0.0117 C                    | 0.0117 C   | 0.0355 C    | 0.0355 C   | 0.0355 C    | 0.0277 C   | 0.0277 C    | 0.0943 C  | 0.0219 C    | 0.00246 CU | 0.000828 CU |     |             |     |             |     |             |      |             |         |
| PCB-86/87/97/108/119/125 | 0.0637 HM   | 0.0731 HM   | 0.069 C     | 0.069 C    | 0.0428 C                    | 0.0428 C   | 0.126 C     | 0.126 C    | 0.126 C     | 0.104 C    | 0.104 C     | 0.349 C   | 0.105 C     | 0.0158 C   | 0.00166 CU  |     |             |     |             |     |             |      |             |         |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte              | Sample ID   |             | Sample Date |            | Sample Depth Range (ft BGS) |             | R2-010-V-Z1 | R2-011-V-Z1 | R2-011-V-Z2 | R2-011-V-Z3 | R2-011-V-Z4 | R2-011-V-Z5 | R2-011-V-Z6 | R2-011-V-Z7 | R2-011-V-Z8 |            |             |             |             |             |             |             |
|----------------------|-------------|-------------|-------------|------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                      | 5/25/2010   | 0-1         | 5/25/2010   | 0-1        | 5/25/2010                   | 0-1         | 5/25/2010   | 0-1         | 5/25/2010   | 1-2         | 5/25/2010   | 2-3         | 5/25/2010   | 3-4         | 5/25/2010   | 4-6        | 5/25/2010   | 6-8         | 5/25/2010   | 8-10        | 5/25/2010   | 10-11.5     |
| PCB-87               | 0 HM        | 0 HM        | 0 HM        | 0 HM       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-88/91            | 0.0225 HM   | 0.0263 HM   | 0.0255 C    | 0.0199 C   | 0.0199 C                    | 0.0255 C    | 0.0199 C    | 0.0199 C    | 0.0402 C    | 0.0402 C    | 0.0418 C    | 0.0939 C    | 0.0292 C    | 0.00334 C   | 0.00334 C   | 0.00334 C  | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU |
| PCB-89               | 0.00254 HM  | 0.00289 HM  | 0.00289     | 0.00179    | 0.00179                     | 0.00289     | 0.00179     | 0.00179     | 0.00703     | 0.00703     | 0.00552     | 0.0177      | 0.00343     | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-90/101/113       | 0.0819 HM   | 0.0952 HM   | 0.0877 C    | 0.0605 C   | 0.0605 C                    | 0.0877 C    | 0.0605 C    | 0.0605 C    | 0.155 C     | 0.155 C     | 0.139 C     | 0.4 C       | 0.185 C     | 0.0348 C    | 0.0348 C    | 0.0348 C   | 0.000968 C  | 0.000968 C  | 0.000968 C  | 0.000968 C  | 0.000968 C  | 0.000968 C  |
| PCB-91               | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-92               | 0 HM        | 0 HM        | 0           | 0          | 0                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0           | 0           | 0           | 0           | 0           | 0           |
| PCB-93/95/98/100/102 | 0.0217 HM   | 0.0252 HM   | 0.0243 C    | 0.0165 C   | 0.0165 C                    | 0.0243 C    | 0.0165 C    | 0.0165 C    | 0.0354 C    | 0.0354 C    | 0.036 C     | 0.0764 CU   | 0.0379 CU   | 0.00771 CU  | 0.00771 CU  | 0.00771 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU | 0.000276 CU |
| PCB-94               | 0.00302 HM  | 0.00304 HM  | 0.00297     | 0.00153    | 0.00153                     | 0.00297     | 0.00153     | 0.00153     | 0.0031      | 0.0031      | 0.00414     | 0.00489     | 0.00166     | 0.00164 U   | 0.00164 U   | 0.00164 U  | 0.000552 U  | 0.000552 U  | 0.000552 U  | 0.000552 U  | 0.000552 U  | 0.000552 U  |
| PCB-95               | 0.00179 HM  | 0.00191 HM  | 0.00192     | 0.00118    | 0.00118                     | 0.00192     | 0.00118     | 0.00118     | 0.0022      | 0.0022      | 0.00233     | 0.00516     | 0.00123     | 0.00082     | 0.00082     | 0.00082    | 0.000276    | 0.000276    | 0.000276    | 0.000276    | 0.000276    | 0.000276    |
| PCB-96               | 0.0726 HM   | 0.0832 HM   | 0.0823      | 0.0651     | 0.0651                      | 0.0823      | 0.0651      | 0.0651      | 0.147       | 0.147       | 0.15        | 0.341       | 0.149       | 0.0232 U    | 0.0232 U    | 0.0232 U   | 0.00114 U   | 0.00114 U   | 0.00114 U   | 0.00114 U   | 0.00114 U   | 0.00114 U   |
| PCB-97               | 0.00156 HM  | 0.00182 HM  | 0.00193 CE  | 0.00144 CE | 0.00144 CE                  | 0.00193 CE  | 0.00144 CE  | 0.00144 CE  | 0.00369 CE  | 0.00369 CE  | 0.00336 CE  | 0.00975 CE  | 0.00185 CE  | 0.00082 CE  | 0.00082 CE  | 0.00082 CE | 0.000276 CE | 0.000276 CE | 0.000276 CE | 0.000276 CE | 0.000276 CE | 0.000276 CE |
| PCB-98               | 0 HM        | 0 HM        | 0 C         | 0 C        | 0 C                         | 0 C         | 0 C         | 0 C         | 0 C         | 0 C         | 0 C         | 0 C         | 0 C         | 0 CU        | 0 CU        | 0 CU       | 0 CU        | 0 CU        | 0 CU        | 0 CU        | 0 CU        | 0 CU        |
| PCB-99               | 0.00747 HM  | 0.00863 HM  | 0.00843     | 0.00629    | 0.00629                     | 0.00843     | 0.00629     | 0.00629     | 0.0147      | 0.0147      | 0.0139      | 0.0288      | 0.00899     | 0.00164     | 0.00164     | 0.00164    | 0.000552    | 0.000552    | 0.000552    | 0.000552    | 0.000552    | 0.000552    |
| PCB-100              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-101              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-102              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-103              | 0.00147 HM  | 0.00167 HM  | 0.00166     | 0.00122    | 0.00122                     | 0.00166     | 0.00122     | 0.00122     | 0.00221     | 0.00221     | 0.00241     | 0.00416     | 0.00248     | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-104              | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000247 U                  | 0.000264 U  | 0.000247 U  | 0.000247 U  | 0.000381 U  | 0.000381 U  | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-105              | 0.0386 HM   | 0.045 HM    | 0.0445      | 0.0202     | 0.0202                      | 0.0386 HM   | 0.0445      | 0.0445      | 0.0617      | 0.0617      | 0.0425      | 0.205       | 0.0398      | 0.00694     | 0.00694     | 0.00694    | 0.000423    | 0.000423    | 0.000423    | 0.000423    | 0.000423    | 0.000423    |
| PCB-106              | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000247 U                  | 0.000264 U  | 0.000247 U  | 0.000247 U  | 0.000381 U  | 0.000381 U  | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-107/124          | 0.00683 HM  | 0.00835 HM  | 0.00811     | 0.00443    | 0.00443                     | 0.00683 HM  | 0.00835 HM  | 0.00811     | 0.0128      | 0.0128      | 0.0103      | 0.0314      | 0.0133      | 0.00216     | 0.00216     | 0.00216    | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-108              | 0.00255 HM  | 0.0028 HM   | 0.00269 C   | 0.00133 C  | 0.00133 C                   | 0.00255 HM  | 0.0028 HM   | 0.00269 C   | 0.00401 C   | 0.00401 C   | 0.00314 C   | 0.0119 C    | 0.00289 C   | 0.00164 CU  | 0.00164 CU  | 0.00164 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU |
| PCB-109              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-110/115          | 0.125 HM    | 0.145 HM    | 0.131 C     | 0.0947 C   | 0.0947 C                    | 0.125 HM    | 0.145 HM    | 0.131 C     | 0.211 C     | 0.211 C     | 0.209 C     | 0.501 C     | 0.209 C     | 0.0343 C    | 0.0343 C    | 0.0343 C   | 0.00145 C   | 0.00145 C   | 0.00145 C   | 0.00145 C   | 0.00145 C   | 0.00145 C   |
| PCB-111              | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000247 U                  | 0.000264 U  | 0.000247 U  | 0.000247 U  | 0.000381 U  | 0.000381 U  | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-112              | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000247 U                  | 0.000264 U  | 0.000247 U  | 0.000247 U  | 0.000381 U  | 0.000381 U  | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-113              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-114              | 0.00265 HM  | 0.00303 HM  | 0.00297     | 0.0012     | 0.0012                      | 0.00265 HM  | 0.00303 HM  | 0.00297     | 0.00493     | 0.00493     | 0.00287     | 0.0154      | 0.00249     | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-115              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-117              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-118              | 0.0899 HM   | 0.104 HM    | 0.0984      | 0.0586     | 0.0586                      | 0.0899 HM   | 0.104 HM    | 0.0984      | 0.159       | 0.159       | 0.133       | 0.422       | 0.181       | 0.0319      | 0.0319      | 0.0319     | 0.000933    | 0.000933    | 0.000933    | 0.000933    | 0.000933    | 0.000933    |
| PCB-119              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-120              | 0.000672 UH | 0.000579 UH | 0.000335    | 0.000247 U | 0.000247 U                  | 0.000335    | 0.000247 U  | 0.000247 U  | 0.000491    | 0.000491    | 0.000521    | 0.00244 U   | 0.00094     | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-121              | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000247 U                  | 0.000264 U  | 0.000247 U  | 0.000247 U  | 0.000381 U  | 0.000381 U  | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-122              | 0.00108 HM  | 0.00145 HM  | 0.00132     | 0.000495   | 0.000495                    | 0.00108 HM  | 0.00145 HM  | 0.00132     | 0.00197     | 0.00197     | 0.00122     | 0.00551     | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-123              | 0.0019 HM   | 0.00203 HM  | 0.00129     | 0.000797   | 0.000797                    | 0.00129     | 0.00203 HM  | 0.00129     | 0.00273     | 0.00273     | 0.00168     | 0.0093      | 0.00199     | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-124              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-125              | 0 HM        | 0 HM        | 0 CE        | 0 CE       | 0 CE                        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE       | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        | 0 CE        |
| PCB-126              | 0.000672 UH | 0.000719 HM | 0.000718    | 0.00031    | 0.00031                     | 0.000672 UH | 0.000719 HM | 0.000718    | 0.00106     | 0.00106     | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-127              | 0.000672 UH | 0.000579 UH | 0.000264 U  | 0.000247 U | 0.000247 U                  | 0.000264 U  | 0.000247 U  | 0.000247 U  | 0.000381 U  | 0.000381 U  | 0.000427 U  | 0.00244 U   | 0.00083 U   | 0.00082 U   | 0.00082 U   | 0.00082 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  | 0.000276 U  |
| PCB-128/166          | 0.00857 HM  | 0.00983 HM  | 0.00916 C   | 0.00424 C  | 0.00424 C                   | 0.00857 HM  | 0.00983 HM  | 0.00916 C   | 0.0113 C    | 0.0113 C    | 0.0102 C    | 0.0282 C    | 0.0164 C    | 0.00434 C   | 0.00434 C   | 0.00434 C  | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU | 0.000552 CU |
| PCB-129/138/160/163  | 0.053 HM    | 0.0617 HM   | 0.0522 C    | 0.0254 C   | 0.0254 C                    | 0.053 HM    | 0.0617 HM   | 0.0522 C    | 0.0254 C    | 0.0254 C    | 0.06 C      | 0.163 C     | 0.105 C     | 0.0309 C    | 0.0309 C    | 0.0309 C   | 0.00166 C   | 0.00166 C   | 0.00166 C   | 0.00166 C   | 0.00166 C   | 0.0         |

Key at the end of Table



**Table 4-8a**  
**Summary of Results of PCB Congener Analysis**

| Sample ID                   |             | Sample Date   |            |             |            |             |            |             |           |             |             |             |      | Sample Depth Range (ft BGS) |  |             |  |             |  |             |  |
|-----------------------------|-------------|---------------|------------|-------------|------------|-------------|------------|-------------|-----------|-------------|-------------|-------------|------|-----------------------------|--|-------------|--|-------------|--|-------------|--|
| Sample Date                 |             | R2-099-V-Z1P2 |            | R2-010-V-Z1 |            | R2-011-V-Z1 |            | R2-011-V-Z2 |           | R2-011-V-Z3 |             | R2-011-V-Z4 |      | R2-011-V-Z5                 |  | R2-011-V-Z6 |  | R2-011-V-Z7 |  | R2-011-V-Z8 |  |
| Sample Date                 |             | 5/25/2010     |            | 5/25/2010   |            | 5/25/2010   |            | 5/25/2010   |           | 5/25/2010   |             | 5/25/2010   |      | 5/25/2010                   |  | 5/25/2010   |  | 5/25/2010   |  | 5/25/2010   |  |
| Sample Depth Range (ft BGS) |             | 0-1           |            | 0-1         |            | 0-1         |            | 1-2         |           | 2-3         |             | 3-4         |      | 4-6                         |  | 6-8         |  | 8-10        |  | 10-11.5     |  |
| Analyte                     |             |               |            |             |            |             |            |             |           |             |             |             |      |                             |  |             |  |             |  |             |  |
| PCEB-131                    | 0.00672 UH  | 0.00771 HM    | 0.000794   | 0.000374    | 0.000374   | 0.00104     | 0.000951   | 0.00296     | 0.00135   | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-132                    | 0.0179 HM   | 0.021 HM      | 0.0194     | 0.0107      | 0.000615   | 0.0257      | 0.0258     | 0.0618      | 0.0413    | 0.0113      | 0.000609    |             |      |                             |  |             |  |             |  |             |  |
| PCEB-133                    | 0.00105 HM  | 0.00125 HM    | 0.0011     | 0.000615    | 0.0011     | 0.00115     | 0.00122    | 0.00244 U   | 0.00187   | 0.0042      | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-134/143                | 0.00438 HM  | 0.00505 HM    | 0.00409    | 0.002       | 0.000409   | 0.00516     | 0.00492    | 0.0152      | 0.00868   | 0.00274     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-135/151/154            | 0.0151 HM   | 0.0174 HM     | 0.0163 C   | 0.0101 C    | 0.0101 C   | 0.0222 C    | 0.0225 C   | 0.0497 C    | 0.036 C   | 0.0193 C    | 0.000812 C  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-136                    | 0.0058 HM   | 0.00658 HM    | 0.00651    | 0.00397     | 0.00397    | 0.0087      | 0.00876    | 0.0213      | 0.0146    | 0.00477     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-137                    | 0.00254 HM  | 0.00351 HM    | 0.00252    | 0.00107     | 0.00107    | 0.00316     | 0.00312    | 0.00979     | 0.00479   | 0.00141     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-138                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-139/140                | 0.00134 UH  | 0.00123 HM    | 0.00117 C  | 0.000624 C  | 0.00138 C  | 0.00142 C   | 0.00142 C  | 0.00489 CU  | 0.00217 C | 0.00164 CU  | 0.000552 CU |             |      |                             |  |             |  |             |  |             |  |
| PCEB-140                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-141                    | 0.00647 HM  | 0.00758 HM    | 0.00682    | 0.00307     | 0.00307    | 0.00986     | 0.00802    | 0.0262      | 0.0135    | 0.00445     | 0.000336    |             |      |                             |  |             |  |             |  |             |  |
| PCEB-142                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-143                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-144                    | 0.00155 HM  | 0.00182 HM    | 0.00163    | 0.000872    | 0.000872   | 0.00221     | 0.00191    | 0.00684     | 0.00332   | 0.00116     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-145                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-146                    | 0.0073 HM   | 0.00859 HM    | 0.00784    | 0.00431     | 0.00431    | 0.0106      | 0.0104     | 0.0219      | 0.0186    | 0.0133      | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-147/149                | 0.0364 HM   | 0.0427 HM     | 0.0393 C   | 0.0237 C    | 0.0393 C   | 0.0514 C    | 0.0521 C   | 0.117 C     | 0.0848 C  | 0.0295 C    | 0.00162 C   |             |      |                             |  |             |  |             |  |             |  |
| PCEB-148                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00277     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-149                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-150                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-151                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-152                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-153/168                | 0.0347 HM   | 0.0409 HM     | 0.036 C    | 0.0198 C    | 0.0198 C   | 0.0494 C    | 0.0467 C   | 0.116 C     | 0.0898 C  | 0.0336 C    | 0.00164 C   |             |      |                             |  |             |  |             |  |             |  |
| PCEB-154                    | 0.00111 HM  | 0.00123 HM    | 0.00111    | 0.000796    | 0.000796   | 0.00106     | 0.00142    | 0.00244 U   | 0.00175   | 0.00303     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-155                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-156/157                | 0.00761 HM  | 0.00854 HM    | 0.00842 C  | 0.00358 C   | 0.00358 C  | 0.0108 C    | 0.00879 C  | 0.0287 C    | 0.0154 C  | 0.00422 C   | 0.000552 CU |             |      |                             |  |             |  |             |  |             |  |
| PCEB-157                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-158                    | 0.00481 HM  | 0.00565 HM    | 0.00506    | 0.00234     | 0.00234    | 0.00658     | 0.00574    | 0.0166      | 0.00934   | 0.003       | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-159                    | 0.000672 UH | 0.000579 UH   | 0.000335   | 0.000247 U  | 0.000247 U | 0.000558    | 0.000494   | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-160                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-161                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-162                    | 0.000672 UH | 0.000579 UH   | 0.00038    | 0.000247 U  | 0.000247 U | 0.00057     | 0.000519   | 0.00244 U   | 0.0009    | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-163                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-164                    | 0.00313 HM  | 0.00322 HM    | 0.00321    | 0.00174     | 0.00174    | 0.00442     | 0.00375    | 0.0103      | 0.00694   | 0.00198     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-165                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-166                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-167                    | 0.00223 HM  | 0.00255 HM    | 0.00238    | 0.0011      | 0.0011     | 0.00319     | 0.00281    | 0.00759     | 0.00449   | 0.00125     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-168                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |
| PCEB-169                    | 0.000672 UH | 0.000579 UH   | 0.000264 U | 0.000247 U  | 0.000247 U | 0.000381 U  | 0.000427 U | 0.00244 U   | 0.00083 U | 0.00082 U   | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-170                    | 0.00821 HM  | 0.00934 HM    | 0.00797    | 0.00362     | 0.00362    | 0.0118      | 0.00988    | 0.0254      | 0.0187    | 0.00678     | 0.000677    |             |      |                             |  |             |  |             |  |             |  |
| PCEB-171/173                | 0.00232 HM  | 0.00276 HM    | 0.00239 C  | 0.00113 C   | 0.00113 C  | 0.00368 C   | 0.0031 C   | 0.0079 C    | 0.00589 C | 0.00231 C   | 0.000552 CU |             |      |                             |  |             |  |             |  |             |  |
| PCEB-172                    | 0.00159 HM  | 0.00183 HM    | 0.00135    | 0.000662    | 0.000662   | 0.00218     | 0.00167    | 0.00458     | 0.00355   | 0.00166     | 0.000276 U  |             |      |                             |  |             |  |             |  |             |  |
| PCEB-173                    | 0 HM        | 0 HM          | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE |                             |  |             |  |             |  |             |  |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte             | Sample ID |     | Sample Date |     | Sample Depth |          | Range (ft BGS) |     | R2-010-V-Z1 |          | R2-011-V-Z1 |         | R2-011-V-Z2 |         | R2-011-V-Z3 |         | R2-011-V-Z4 |         | R2-011-V-Z5 |         | R2-011-V-Z6 |         | R2-011-V-Z7 |          | R2-011-V-Z8 |          |
|---------------------|-----------|-----|-------------|-----|--------------|----------|----------------|-----|-------------|----------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|---------|-------------|----------|-------------|----------|
|                     | 5/25/2010 | 0-1 | 5/25/2010   | 0-1 | 5/25/2010    | 0-1      | 5/25/2010      | 0-1 | 5/25/2010   | 0-1      | 5/25/2010   | 0-1     | 5/25/2010   | 1-2     | 5/25/2010   | 2-3     | 5/25/2010   | 3-4     | 5/25/2010   | 4-6     | 5/25/2010   | 6-8     | 5/25/2010   | 8-10     | 5/25/2010   | 10-11.5  |
| PCB-174             | 0.00824   | HM  | 0.0095      | HM  | 0.00841      | 0.00841  | 0.00402        | U   | 0.00521     | 0.0135   | 0.011       | 0.0284  | U           | 0.0083  | U           | 0.0211  | 0.0135      | 0.0082  | U           | 0.0082  | U           | 0.0082  | U           | 0.0082   | U           | 0.00117  |
| PCB-175             | 0.00672   | UH  | 0.000579    | UH  | 0.00036      | 0.00036  | 0.000247       | U   | 0.000521    | 0.000521 | 0.00447     | 0.00244 | U           | 0.00083 | U           | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297  | 0.00183     | 0.00297  |
| PCB-176             | 0.00107   | HM  | 0.00129     | HM  | 0.00115      | 0.00115  | 0.000583       | U   | 0.00174     | 0.00174  | 0.00153     | 0.00409 | U           | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297 | 0.00183     | 0.00297  | 0.00183     | 0.00297  |
| PCB-177             | 0.00512   | HM  | 0.00603     | HM  | 0.0053       | 0.0053   | 0.00252        | U   | 0.00752     | 0.00752  | 0.00602     | 0.0156  | U           | 0.012   | 0.00673     | 0.00673 | 0.00673     | 0.00673 | 0.00673     | 0.00673 | 0.00673     | 0.00673 | 0.00673     | 0.00673  | 0.00673     | 0.00673  |
| PCB-178             | 0.00242   | HM  | 0.00285     | HM  | 0.00251      | 0.00251  | 0.00125        | U   | 0.00312     | 0.00312  | 0.00294     | 0.006   | U           | 0.00502 | 0.00837     | 0.00502 | 0.00837     | 0.00502 | 0.00837     | 0.00502 | 0.00837     | 0.00502 | 0.00837     | 0.00502  | 0.00837     | 0.00502  |
| PCB-179             | 0.00395   | HM  | 0.00464     | HM  | 0.00426      | 0.00426  | 0.00218        | U   | 0.0061      | 0.0061   | 0.00541     | 0.0128  | U           | 0.00978 | 0.00899     | 0.00978 | 0.00899     | 0.00978 | 0.00899     | 0.00978 | 0.00899     | 0.00978 | 0.00899     | 0.00978  | 0.00899     | 0.00978  |
| PCB-180/193         | 0.0192    | HM  | 0.0221      | HM  | 0.0188       | 0.0188   | 0.0088         | C   | 0.0295      | C        | 0.0241      | 0.0607  | C           | 0.0456  | C           | 0.0456  | C           | 0.0456  | C           | 0.0607  | C           | 0.0456  | C           | 0.03     | C           | 0.00259  |
| PCB-181             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-182             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-183/185         | 0.00574   | HM  | 0.00647     | HM  | 0.00577      | 0.00577  | 0.00274        | C   | 0.0089      | C        | 0.0074      | 0.0194  | C           | 0.0141  | C           | 0.0141  | C           | 0.0141  | C           | 0.0194  | C           | 0.0141  | C           | 0.00975  | C           | 0.000859 |
| PCB-184             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-185             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-186             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-187             | 0.0126    | HM  | 0.0146      | HM  | 0.0123       | 0.0123   | 0.00615        | U   | 0.0166      | 0.0166   | 0.0148      | 0.0337  | U           | 0.0256  | 0.0281      | 0.0256  | 0.0281      | 0.0256  | 0.0281      | 0.0337  | U           | 0.0256  | 0.0281      | 0.0256   | 0.0281      | 0.0256   |
| PCB-188             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-189             | 0.00672   | UH  | 0.000579    | UH  | 0.000336     | 0.000336 | 0.000247       | U   | 0.000735    | 0.000735 | 0.000556    | 0.00244 | U           | 0.00087 | 0.00087     | 0.00087 | 0.00087     | 0.00087 | 0.00087     | 0.00244 | U           | 0.00087 | 0.00087     | 0.00087  | 0.00087     | 0.000276 |
| PCB-190             | 0.0168    | HM  | 0.0202      | HM  | 0.0166       | 0.0166   | 0.00802        | U   | 0.00259     | 0.00259  | 0.00208     | 0.00541 | U           | 0.0037  | 0.00166     | 0.0037  | 0.00166     | 0.0037  | 0.00166     | 0.00541 | U           | 0.0037  | 0.00166     | 0.0037   | 0.00166     | 0.000276 |
| PCB-191             | 0.00672   | UH  | 0.000579    | UH  | 0.000302     | 0.000302 | 0.000247       | U   | 0.000526    | 0.000526 | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-192             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-193             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-194             | 0.00527   | HM  | 0.00607     | HM  | 0.0053       | 0.0053   | 0.00227        | U   | 0.00759     | 0.00759  | 0.00644     | 0.0154  | U           | 0.0113  | 0.0154      | 0.0113  | 0.0154      | 0.0113  | 0.0154      | 0.0154  | U           | 0.0113  | 0.0154      | 0.0113   | 0.0154      | 0.00151  |
| PCB-195             | 0.00186   | HM  | 0.0022      | HM  | 0.00186      | 0.00186  | 0.000829       | U   | 0.00277     | 0.00277  | 0.00224     | 0.00586 | U           | 0.00403 | 0.00391     | 0.00403 | 0.00391     | 0.00403 | 0.00391     | 0.00586 | U           | 0.00403 | 0.00391     | 0.00403  | 0.00391     | 0.000405 |
| PCB-196             | 0.00272   | HM  | 0.00315     | HM  | 0.00277      | 0.00277  | 0.00135        | U   | 0.00419     | 0.00419  | 0.00359     | 0.00866 | U           | 0.00665 | 0.0108      | 0.00665 | 0.0108      | 0.00665 | 0.0108      | 0.00866 | U           | 0.00665 | 0.0108      | 0.00665  | 0.0108      | 0.00122  |
| PCB-197/200         | 0.00134   | UH  | 0.00116     | UH  | 0.000999     | 0.000999 | 0.000495       | CU  | 0.00141     | C        | 0.00127     | 0.00489 | CU          | 0.00208 | C           | 0.00208 | C           | 0.00489 | CU          | 0.00208 | C           | 0.00208 | C           | 0.00343  | C           | 0.000552 |
| PCB-198/199         | 0.00788   | HM  | 0.00837     | HM  | 0.00777      | 0.00777  | 0.00373        | C   | 0.0107      | C        | 0.00953     | 0.0235  | C           | 0.0194  | C           | 0.0194  | C           | 0.0235  | C           | 0.0235  | C           | 0.0194  | C           | 0.0436   | C           | 0.00597  |
| PCB-199             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-200             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-201             | 0.000905  | HM  | 0.001       | HM  | 0.000872     | 0.000872 | 0.000392       | U   | 0.00122     | 0.00122  | 0.00108     | 0.00272 | U           | 0.00203 | 0.00431     | 0.00203 | 0.00431     | 0.00203 | 0.00431     | 0.00272 | U           | 0.00203 | 0.00431     | 0.00203  | 0.00431     | 0.000445 |
| PCB-202             | 0.00184   | HM  | 0.00209     | HM  | 0.00195      | 0.00195  | 0.000998       | U   | 0.00254     | 0.00254  | 0.00254     | 0.0057  | U           | 0.00526 | 0.0153      | 0.00526 | 0.0153      | 0.00526 | 0.0153      | 0.0057  | U           | 0.00526 | 0.0153      | 0.00526  | 0.0153      | 0.00206  |
| PCB-203             | 0.00411   | HM  | 0.00448     | HM  | 0.00421      | 0.00421  | 0.00203        | U   | 0.00609     | 0.00609  | 0.00537     | 0.0129  | U           | 0.00968 | 0.021       | 0.00968 | 0.021       | 0.00968 | 0.021       | 0.0129  | U           | 0.00968 | 0.021       | 0.00968  | 0.021       | 0.00246  |
| PCB-204             | 0.00672   | UH  | 0.000579    | UH  | 0.000264     | 0.000264 | 0.000247       | U   | 0.000381    | U        | 0.000427    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.00082  | U           | 0.000276 |
| PCB-205             | 0.00672   | UH  | 0.000579    | UH  | 0.000369     | 0.000369 | 0.000247       | U   | 0.000644    | 0.000644 | 0.000464    | 0.00244 | U           | 0.00083 | U           | 0.00083 | U           | 0.00083 | U           | 0.00244 | U           | 0.00083 | U           | 0.000882 | 0.000276    | U        |
| PCB-206             | 0.011     | HM  | 0.0103      | HM  | 0.00875      | 0.00875  | 0.00613        | U   | 0.0127      | 0.0127   | 0.0151      | 0.0363  | U           | 0.0514  | 0.183       | 0.0514  | 0.183       | 0.0514  | 0.183       | 0.0363  | U           | 0.0514  | 0.183       | 0.0514   | 0.183       | 0.0297   |
| PCB-207             | 0.000968  | HM  | 0.000881    | HM  | 0.000836     | 0.000836 | 0.000525       | U   | 0.00119     | 0.00119  | 0.00137     | 0.00313 | U           | 0.00459 | 0.0125      | 0.00459 | 0.0125      | 0.00459 | 0.0125      | 0.00313 | U           | 0.00459 | 0.0125      | 0.00459  | 0.0125      | 0.00158  |
| PCB-208             | 0.00469   | HM  | 0.00432     | HM  | 0.00371      | 0.00371  | 0.00271        | U   | 0.00519     | 0.00519  | 0.0067      | 0.0159  | U           | 0.0251  | 0.0857      | 0.0251  | 0.0857      | 0.0251  | 0.0857      | 0.0159  | U           | 0.0251  | 0.0857      | 0.0251   | 0.0857      | 0.0137   |
| PCB-209             | 0.0173    | HM  | 0.019       | HM  | 0.0168       | 0.0168   | 0.0136         | U   | 0.0281      | 0.0281   | 0.0521      | 0.0909  | U           | 0.204   | 0.319       | 0.204   | 0.319       | 0.204   | 0.319       | 0.0909  | U           | 0.204   | 0.319       | 0.204    | 0.319       | 0.0355   |
| TOTAL PCB CONGENERS | 2.59      | HM  | 2.98        | HM  | 2.8          | 2.8      | 2.82           |     | 7.2         | 7.2      | 5.98        | 24.1    |             | 5.46    | 1.27        | 5.46    | 1.27        | 5.46    | 1.27        | 24.1    |             | 5.46    | 1.27        | 5.46     | 1.27        | 0.116    |

**Table 4-8a**  
**Summary of Results of PCB Congener Analysis**

| Sample ID                          |          | Sample Date |          | Sample Depth Range (ft BGS) |          | Sample ID   |          |             |          |             |          |             |          |             |          | Sample Date |          | Sample Depth Range (ft BGS) |          |
|------------------------------------|----------|-------------|----------|-----------------------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|----------|-----------------------------|----------|
| R2-012-V-Z1                        |          | R2-013-V-Z1 |          | R2-014-V-Z1                 |          | R2-015-V-Z1 |          | R3-016-V-Z1 |          | R3-017-V-Z1 |          | R3-018-V-Z1 |          | R3-019-V-Z1 |          | R3-020-V-Z1 |          | R3-020-V-Z2                 |          |
| 5/25/2010                          | 0-1      | 5/25/2010   | 0-1      | 5/25/2010                   | 0-1      | 5/25/2010   | 0-1      | 5/25/2010   | 0-1      | 5/26/2010   | 0-1      | 5/26/2010   | 0-1      | 5/26/2010   | 0-1      | 5/26/2010   | 0-1      | 5/26/2010                   | 1-2      |
| PCB Congeners by HRCG/HRMS (mg/kg) |          |             |          |                             |          |             |          |             |          |             |          |             |          |             |          |             |          |                             |          |
| PCB-1                              | 0.00129  | 0.00119     | 0.00111  | 0.00166                     | 0.00111  | 0.00111     | 0.00111  | 0.00345     | 0.00345  | 0.00248     | 0.00248  | 0.00184     | 0.00184  | 0.000917    | 0.000917 | 0.00257     | 0.00257  | 0.00257                     | 0.00257  |
| PCB-2                              | 0.000325 | 0.000585    | 0.000375 | 0.000375                    | 0.000542 | 0.000542    | 0.000542 | 0.000951    | 0.000951 | 0.000475    | 0.000475 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000671    | 0.000671 | 0.000671                    | 0.000671 |
| PCB-3                              | 0.00216  | 0.00176     | 0.00258  | 0.00176                     | 0.00176  | 0.00176     | 0.00176  | 0.00351     | 0.00351  | 0.00176     | 0.00176  | 0.00213     | 0.00213  | 0.002       | 0.002    | 0.00267     | 0.00267  | 0.00267                     | 0.00267  |
| PCB-4                              | 0.0167   | 0.0168      | 0.0207   | 0.0207                      | 0.0146   | 0.0146      | 0.0146   | 0.0388      | 0.0388   | 0.0218      | 0.0218   | 0.0191      | 0.0191   | 0.0124      | 0.0124   | 0.0286      | 0.0286   | 0.0286                      | 0.0286   |
| PCB-5                              | 0.000218 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.000584    | 0.000584 | 0.000475    | 0.000475 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000353    | 0.000353 | 0.000353                    | 0.000353 |
| PCB-6                              | 0.00707  | 0.0059      | 0.0085   | 0.0085                      | 0.00599  | 0.00599     | 0.00599  | 0.0213      | 0.0213   | 0.00715     | 0.00715  | 0.00868     | 0.00868  | 0.0072      | 0.0072   | 0.0144      | 0.0144   | 0.0144                      | 0.0144   |
| PCB-7                              | 0.000841 | 0.000622    | 0.000936 | 0.000936                    | 0.000709 | 0.000709    | 0.000709 | 0.00321     | 0.00321  | 0.00073     | 0.00073  | 0.000583    | 0.000583 | 0.000956    | 0.000956 | 0.00166     | 0.00166  | 0.00166                     | 0.00166  |
| PCB-8                              | 0.00779  | 0.00722     | 0.00862  | 0.00862                     | 0.00633  | 0.00633     | 0.00633  | 0.0598      | 0.0598   | 0.0108      | 0.0108   | 0.01        | 0.01     | 0.0107      | 0.0107   | 0.0237      | 0.0237   | 0.0237                      | 0.0237   |
| PCB-9                              | 0.000834 | 0.000827    | 0.00105  | 0.00105                     | 0.000795 | 0.000795    | 0.000795 | 0.00435     | 0.00435  | 0.00112     | 0.00112  | 0.000951    | 0.000951 | 0.000959    | 0.000959 | 0.00228     | 0.00228  | 0.00228                     | 0.00228  |
| PCB-10                             | 0.00059  | 0.00104     | 0.00128  | 0.00128                     | 0.000665 | 0.000665    | 0.000665 | 0.00258     | 0.00258  | 0.00134     | 0.00134  | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000353    | 0.000353 | 0.000353                    | 0.000353 |
| PCB-11                             | 0.0109   | 0.0293      | 0.0128   | 0.0128                      | 0.0271   | 0.0271      | 0.0271   | 0.0292      | 0.0292   | 0.0238      | 0.0238   | 0.0292      | 0.0292   | 0.0459      | 0.0459   | 0.0176      | 0.0176   | 0.0176                      | 0.0176   |
| PCB-12/13                          | 0.00674  | 0.00684     | 0.00732  | 0.00732                     | 0.00491  | 0.00491     | 0.00491  | 0.0104      | 0.0104   | 0.00688     | 0.00688  | 0.00811     | 0.00811  | 0.00326     | 0.00326  | 0.00915     | 0.00915  | 0.00915                     | 0.00915  |
| PCB-13                             | 0        | 0           | 0        | 0                           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0                           | 0        |
| PCB-14                             | 0.000218 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.000584    | 0.000584 | 0.000475    | 0.000475 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000353    | 0.000353 | 0.000353                    | 0.000353 |
| PCB-15                             | 0.0349   | 0.0351      | 0.0375   | 0.0375                      | 0.0272   | 0.0272      | 0.0272   | 0.0625      | 0.0625   | 0.0267      | 0.0267   | 0.0334      | 0.0334   | 0.0232      | 0.0232   | 0.0395      | 0.0395   | 0.0395                      | 0.0395   |
| PCB-16                             | 0.00651  | 0.00775     | 0.00844  | 0.00844                     | 0.00527  | 0.00527     | 0.00527  | 0.0808      | 0.0808   | 0.0117      | 0.0117   | 0.0108      | 0.0108   | 0.0095      | 0.0095   | 0.0202      | 0.0202   | 0.0202                      | 0.0202   |
| PCB-17                             | 0.0393   | 0.0449      | 0.0497   | 0.0497                      | 0.0353   | 0.0353      | 0.0353   | 0.151       | 0.151    | 0.0452      | 0.0452   | 0.0555      | 0.0555   | 0.0389      | 0.0389   | 0.0735      | 0.0735   | 0.0735                      | 0.0735   |
| PCB-18/30                          | 0.0302   | 0.0362      | 0.0397   | 0.0397                      | 0.0276   | 0.0276      | 0.0276   | 0.235       | 0.235    | 0.0417      | 0.0417   | 0.0433      | 0.0433   | 0.0398      | 0.0398   | 0.0719      | 0.0719   | 0.0719                      | 0.0719   |
| PCB-19                             | 0.014    | 0.0161      | 0.0188   | 0.0188                      | 0.0121   | 0.0121      | 0.0121   | 0.0332      | 0.0332   | 0.0161      | 0.0161   | 0.019       | 0.019    | 0.0107      | 0.0107   | 0.0239      | 0.0239   | 0.0239                      | 0.0239   |
| PCB-20/28                          | 0.0719   | 0.0865      | 0.0894   | 0.0894                      | 0.0643   | 0.0643      | 0.0643   | 0.44        | 0.44     | 0.0883      | 0.0883   | 0.105       | 0.105    | 0.105       | 0.105    | 0.139       | 0.139    | 0.139                       | 0.139    |
| PCB-21/33                          | 0.012    | 0.0157      | 0.0149   | 0.0149                      | 0.0104   | 0.0104      | 0.0104   | 0.151       | 0.151    | 0.0185      | 0.0185   | 0.0166      | 0.0166   | 0.0295      | 0.0295   | 0.0365      | 0.0365   | 0.0365                      | 0.0365   |
| PCB-22                             | 0.0116   | 0.0146      | 0.0149   | 0.0149                      | 0.00953  | 0.00953     | 0.00953  | 0.107       | 0.107    | 0.0173      | 0.0173   | 0.0171      | 0.0171   | 0.0183      | 0.0183   | 0.0286      | 0.0286   | 0.0286                      | 0.0286   |
| PCB-23                             | 0.000218 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.000584    | 0.000584 | 0.000475    | 0.000475 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000353    | 0.000353 | 0.000353                    | 0.000353 |
| PCB-24                             | 0.000218 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.000584    | 0.000584 | 0.000475    | 0.000475 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000353    | 0.000353 | 0.000353                    | 0.000353 |
| PCB-25                             | 0.0335   | 0.0357      | 0.0407   | 0.0407                      | 0.0308   | 0.0308      | 0.0308   | 0.0643      | 0.0643   | 0.0341      | 0.0341   | 0.0498      | 0.0498   | 0.032       | 0.032    | 0.0568      | 0.0568   | 0.0568                      | 0.0568   |
| PCB-26/29                          | 0.0521   | 0.0584      | 0.0648   | 0.0648                      | 0.048    | 0.048       | 0.048    | 0.11        | 0.11     | 0.0541      | 0.0541   | 0.0767      | 0.0767   | 0.0486      | 0.0486   | 0.0904      | 0.0904   | 0.0904                      | 0.0904   |
| PCB-27                             | 0.0181   | 0.0197      | 0.0226   | 0.0226                      | 0.0153   | 0.0153      | 0.0153   | 0.0321      | 0.0321   | 0.0176      | 0.0176   | 0.0237      | 0.0237   | 0.0139      | 0.0139   | 0.0274      | 0.0274   | 0.0274                      | 0.0274   |
| PCB-28                             | 0        | 0           | 0        | 0                           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0                           | 0        |
| PCB-30                             | 0        | 0           | 0        | 0                           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0                           | 0        |
| PCB-31                             | 0.0757   | 0.0892      | 0.0932   | 0.0932                      | 0.0691   | 0.0691      | 0.0691   | 0.364       | 0.364    | 0.0883      | 0.0883   | 0.111       | 0.111    | 0.0916      | 0.0916   | 0.144       | 0.144    | 0.144                       | 0.144    |
| PCB-32                             | 0.0237   | 0.0263      | 0.0303   | 0.0303                      | 0.0209   | 0.0209      | 0.0209   | 0.0878      | 0.0878   | 0.0258      | 0.0258   | 0.033       | 0.033    | 0.02        | 0.02     | 0.043       | 0.043    | 0.043                       | 0.043    |
| PCB-33                             | 0        | 0           | 0        | 0                           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0           | 0        | 0                           | 0        |
| PCB-34                             | 0.00127  | 0.00142     | 0.00157  | 0.00157                     | 0.00113  | 0.00113     | 0.00113  | 0.00624     | 0.00624  | 0.00132     | 0.00132  | 0.00175     | 0.00175  | 0.00139     | 0.00139  | 0.00221     | 0.00221  | 0.00221                     | 0.00221  |
| PCB-35                             | 0.000473 | 0.000665    | 0.000577 | 0.000577                    | 0.000542 | 0.000542    | 0.000542 | 0.00308     | 0.00308  | 0.000551    | 0.000551 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000947    | 0.000947 | 0.000947                    | 0.000947 |
| PCB-36                             | 0.000218 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.000437    | 0.000437 | 0.00119     | 0.00119  | 0.00198     | 0.00198  | 0.00152     | 0.00152  | 0.00254     | 0.00254  | 0.00254                     | 0.00254  |
| PCB-37                             | 0.0174   | 0.0232      | 0.0222   | 0.0222                      | 0.0148   | 0.0148      | 0.0148   | 0.103       | 0.103    | 0.018       | 0.018    | 0.0203      | 0.0203   | 0.0255      | 0.0255   | 0.0299      | 0.0299   | 0.0299                      | 0.0299   |
| PCB-38                             | 0.000218 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.00162     | 0.00162  | 0.000475    | 0.000475 | 0.000583    | 0.000583 | 0.000917    | 0.000917 | 0.000353    | 0.000353 | 0.000353                    | 0.000353 |
| PCB-39                             | 0.000529 | 0.000585    | 0.000256 | 0.000256                    | 0.000542 | 0.000542    | 0.000542 | 0.00173     | 0.00173  | 0.000475    | 0.000475 | 0.000609    | 0.000609 | 0.000917    | 0.000917 | 0.000691    | 0.000691 | 0.000691                    | 0.000691 |
| PCB-40/41/71                       | 0.0523   | 0.0615      | 0.0688   | 0.0688                      | 0.048    | 0.048       | 0.048    | 0.223       | 0.223    | 0.0573      | 0.0573   | 0.0803      | 0.0803   | 0.0601      | 0.0601   | 0.0987      | 0.0987   | 0.0987                      | 0.0987   |
| PCB-41                             | 0.0109   | 0.0293      | 0.0128   | 0.0128                      | 0.0271   | 0.0271      | 0.0271   | 0.0292      | 0.0292   | 0.0238      | 0.0238   | 0.0292      | 0.0292   | 0.0459      | 0.0459   | 0.0176      | 0.0176   | 0.0176                      | 0.0176   |
| PCB-42                             | 0.0342   | 0.039       | 0.0434   | 0.0434                      | 0.031    | 0.031       | 0.031    | 0.149       | 0.149    | 0.0364      | 0.0364   | 0.0505      | 0.0505   | 0.0409      | 0.0409   | 0.0623      | 0.0623   | 0.0623                      | 0.0623   |
| PCB-43                             | 0.00709  | 0.0092      | 0.00963  | 0.00963                     | 0.00691  | 0.00691     | 0.00691  | 0.0277      | 0.0277   | 0.00645     | 0.00645  | 0.0119      | 0.0119   | 0.00793     | 0.00793  | 0.0124      | 0.0124   | 0.0124                      | 0.0124   |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID  |             | Sample Date |             | Sample Depth Range (ft BGS) |            | R2-012-V-Z1 |             | R2-013-V-Z1 |            | R2-014-V-Z1 |     | R2-015-V-Z1 |     | R3-016-V-Z1 |     | R3-017-V-Z1 |     | R3-018-V-Z1 |     | R3-019-V-Z1 |     | R3-020-V-Z1 |     | R3-020-V-Z2 |     |
|--------------------------|------------|-------------|-------------|-------------|-----------------------------|------------|-------------|-------------|-------------|------------|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|
|                          | 5/25/2010  |             | 5/25/2010   |             | 5/25/2010                   |            | 5/25/2010   |             | 5/25/2010   |            | 5/25/2010   |     | 5/25/2010   |     | 5/26/2010   |     | 5/26/2010   |     | 5/25/2010   |     | 5/26/2010   |     | 5/26/2010   |     | 5/26/2010   |     |
|                          | 0-1        | 0-1         | 0-1         | 0-1         | 0-1                         | 0-1        | 0-1         | 0-1         | 0-1         | 0-1        | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 1-2         | 1-2 |
| PCB-44/47/65             | 0.141 C    | 0.166 HM    | 0.181 HM    | 0.131 HM    | 0.131 HM                    | 0.529 HM   | 0.148 C     | 0.209 HM    | 0.162 HM    | 0.247 C    | 1.99 HM     |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-45/51                | 0.0246 C   | 0.0294 HM   | 0.0324 HM   | 0.023 HM    | 0.105 HM                    | 0.0304 C   | 0.0391 HM   | 0.0276 HM   | 0.0486 C    | 0.413 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-46                   | 0.00789    | 0.00911 HM  | 0.0106 HM   | 0.00712 HM  | 0.0346 HM                   | 0.00963    | 0.0126 HM   | 0.00831 HM  | 0.0163      | 0.156 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-47                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-48                   | 0.0133     | 0.0171 HM   | 0.0175 HM   | 0.0119 HM   | 0.096 HM                    | 0.014      | 0.0192 HM   | 0.0189 HM   | 0.0256      | 0.464 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-49/69                | 0.106 C    | 0.122 HM    | 0.135 HM    | 0.0984 HM   | 0.357 HM                    | 0.107 C    | 0.161 HM    | 0.122 HM    | 0.188 C     | 1.25 HM    |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-50/53                | 0.0246 C   | 0.0287 HM   | 0.0321 HM   | 0.0227 HM   | 0.0831 HM                   | 0.0294 C   | 0.0395 HM   | 0.0254 HM   | 0.0482 C    | 0.316 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-51                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-52                   | 0.168      | 0.195 HM    | 0.217 HM    | 0.157 HM    | 0.608 HM                    | 0.177      | 0.259 HM    | 0.199 HM    | 0.304       | 2.12 HM    |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-53                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-54                   | 0.00112    | 0.00128 HM  | 0.00155 HM  | 0.00093 HM  | 0.00191 HM                  | 0.00108    | 0.0016 HM   | 0.000917 UH | 0.00175     | 0.00545 HM |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-55                   | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH                 | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000353 U  | 0.00143 UH |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-56                   | 0.0347     | 0.0446 HM   | 0.0443 HM   | 0.0304 HM   | 0.189 HM                    | 0.0357     | 0.05 HM     | 0.0448 HM   | 0.0586      | 0.784 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-57                   | 0.00162    | 0.00176 HM  | 0.00217 HM  | 0.00144 HM  | 0.00313 HM                  | 0.00141    | 0.00242 HM  | 0.00134 HM  | 0.00258     | 0.0119 HM  |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-58                   | 0.000481   | 0.000671 HM | 0.000724 HM | 0.000542 UH | 0.00171 HM                  | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000919    | 0.00679 HM |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-59/62/75             | 0.0116 C   | 0.0137 HM   | 0.015 HM    | 0.0108 HM   | 0.045 HM                    | 0.011 C    | 0.0167 HM   | 0.0129 HM   | 0.0204 C    | 0.182 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-60                   | 0.0106     | 0.0132 HM   | 0.0133 HM   | 0.00885 HM  | 0.0287 HM                   | 0.0104     | 0.0155 HM   | 0.00948 HM  | 0.0183      | 0.153 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-61/70/74/76          | 0.128 C    | 0.164 HM    | 0.161 HM    | 0.114 HM    | 0.654 HM                    | 0.127 C    | 0.185 HM    | 0.164 HM    | 0.211 C     | 2.65 HM    |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-62                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-63                   | 0.00605    | 0.00697 HM  | 0.00753 HM  | 0.00517 HM  | 0.0188 HM                   | 0.00503    | 0.00855 HM  | 0.00608 HM  | 0.00939     | 0.0754 HM  |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-64                   | 0.0517     | 0.0604 HM   | 0.0655 HM   | 0.0474 HM   | 0.229 HM                    | 0.0529     | 0.0772 HM   | 0.0657 HM   | 0.0943      | 0.877 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-65                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-66                   | 0.0875     | 0.108 HM    | 0.109 HM    | 0.0777 HM   | 0.427 HM                    | 0.0884     | 0.126 HM    | 0.119 HM    | 0.14        | 1.59 HM    |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-67                   | 0.00264    | 0.00324 HM  | 0.00328 HM  | 0.00229 HM  | 0.0109 HM                   | 0.0023     | 0.00373 HM  | 0.00313 HM  | 0.0044      | 0.0556 HM  |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-68                   | 0.00203    | 0.00225 HM  | 0.00255 HM  | 0.00181 HM  | 0.0034 HM                   | 0.00172    | 0.00276 HM  | 0.00163 HM  | 0.00293     | 0.0081 HM  |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-69                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-70                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-71                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-72                   | 0.0029     | 0.0033 HM   | 0.0036 HM   | 0.00246 HM  | 0.00537 HM                  | 0.00252    | 0.00402 HM  | 0.00235 HM  | 0.00426     | 0.0141 HM  |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-73                   | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH                 | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000353 U  | 0.00143 UH |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-74                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-75                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-76                   | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM                        | 0 CE       | 0 CE        | 0 HM        | 0 HM        | 0 C        | 0 HM        |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-77                   | 0.0102     | 0.0131 HM   | 0.0127 HM   | 0.00873 HM  | 0.0343 HM                   | 0.00841    | 0.0124 HM   | 0.00984 HM  | 0.0132      | 0.131 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-78                   | 0.000402   | 0.000585 UH | 0.000521 HM | 0.000542 UH | 0.000791 HM                 | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000529    | 0.00143 UH |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-79                   | 0.00128    | 0.00167 HM  | 0.00169 HM  | 0.000642 HM | 0.00134 HM                  | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000353 U  | 0.00143 UH |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-80                   | 0.000427   | 0.000585 UH | 0.000529 HM | 0.000542 UH | 0.00077 HM                  | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000533    | 0.00143 UH |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-81                   | 0.000218 U | 0.000585 UH | 0.000292 HM | 0.000542 UH | 0.000584 UH                 | 0.000475 U | 0.000583 UH | 0.000917 UH | 0.000353 U  | 0.00228 HM |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-82                   | 0.013      | 0.0144 HM   | 0.0166 HM   | 0.0109 HM   | 0.0368 HM                   | 0.0129     | 0.0188 HM   | 0.012 HM    | 0.0199      | 0.152 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-83/99                | 0.00613    | 0.00763 HM  | 0.00758 HM  | 0.00572 HM  | 0.0168 HM                   | 0.00719    | 0.00911 HM  | 0.0066 HM   | 0.000353 U  | 0.0628 HM  |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-84                   | 0.0326     | 0.0382 HM   | 0.0419 HM   | 0.0299 HM   | 0.094 HM                    | 0.0353     | 0.0488 HM   | 0.032 HM    | 0.0563      | 0.373 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-85/116/117           | 0.0204 C   | 0.0233 HM   | 0.0257 HM   | 0.0171 HM   | 0.0476 HM                   | 0.0184 C   | 0.0285 HM   | 0.0164 HM   | 0.0287 C    | 0.193 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |
| PCB-86/87/97/108/119/125 | 0.0581 C   | 0.0699 HM   | 0.0728 HM   | 0.0515 HM   | 0.156 HM                    | 0.0569 C   | 0.0837 HM   | 0.0548 HM   | 0.086 C     | 0.661 HM   |             |     |             |     |             |     |             |     |             |     |             |     |             |     |             |     |

Key at the end of Table

Table 4-8a

| Sample ID                   |  | R2-012-V-Z1 |  | R2-013-V-Z1 |  | R2-014-V-Z1 |  | R2-015-V-Z1 |  | R3-016-V-Z1 |  | R3-017-V-Z1 |  | R3-018-V-Z1 |  | R3-019-V-Z1 |  | R3-020-V-Z1 |  | R3-020-V-Z2 |  |
|-----------------------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|
| Sample Date                 |  | 5/25/2010   |  | 5/25/2010   |  | 5/25/2010   |  | 5/25/2010   |  | 5/26/2010   |  | 5/26/2010   |  | 5/25/2010   |  | 5/26/2010   |  | 5/26/2010   |  | 5/26/2010   |  |
| Sample Depth Range (ft BGS) |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 1-2         |  |
| Analyte                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-87                      |  | 0.0217 C    |  | 0.0247 HM   |  | 0.0273 HM   |  | 0.0193 HM   |  | 0.054 HM    |  | 0.0219 C    |  | 0.0312 HM   |  | 0.0208 HM   |  | 0.0352 C    |  | 0.204 HM    |  |
| PCB-88/91                   |  | 0.0023      |  | 0.00291 HM  |  | 0.00297 HM  |  | 0.0021 HM   |  | 0.00786 HM  |  | 0.00263     |  | 0.00371 HM  |  | 0.00239 HM  |  | 0.00416     |  | 0.0374 HM   |  |
| PCB-89                      |  | 0.0742 C    |  | 0.0885 HM   |  | 0.0927 HM   |  | 0.0664 HM   |  | 0.198 HM    |  | 0.0716 C    |  | 0.107 HM    |  | 0.0735 HM   |  | 0.109 C     |  | 0.776 HM    |  |
| PCB-90/101/113              |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-91                      |  | 0           |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0           |  | 0 HM        |  | 0 HM        |  | 0           |  | 0 HM        |  |
| PCB-92                      |  | 0.0202 C    |  | 0.0236 HM   |  | 0.0258 HM   |  | 0.0182 HM   |  | 0.0441 HM   |  | 0.0189 C    |  | 0.0286 HM   |  | 0.0187 UH   |  | 0.0309 C    |  | 0.162 HM    |  |
| PCB-93/95/98/100/102        |  | 0.00276     |  | 0.00332 HM  |  | 0.00344 HM  |  | 0.0024 HM   |  | 0.0054 HM   |  | 0.00247 U   |  | 0.00375 HM  |  | 0.00183 HM  |  | 0.00396     |  | 0.0132 HM   |  |
| PCB-94                      |  | 0.00165     |  | 0.00181 HM  |  | 0.00204 HM  |  | 0.00149 HM  |  | 0.00298 HM  |  | 0.000475    |  | 0.00234 HM  |  | 0.00132 HM  |  | 0.0026      |  | 0.0107 HM   |  |
| PCB-95                      |  | 0.068       |  | 0.0784 HM   |  | 0.0868 HM   |  | 0.0618 HM   |  | 0.188 HM    |  | 0.0769      |  | 0.102 HM    |  | 0.0693 HM   |  | 0.116       |  | 0.714 HM    |  |
| PCB-96                      |  | 0.00154 CE  |  | 0.00179 HM  |  | 0.00195 HM  |  | 0.00138 HM  |  | 0.00457 HM  |  | 0.00165 CE  |  | 0.00243 HM  |  | 0.00152 HM  |  | 0.00277 C   |  | 0.0202 HM   |  |
| PCB-97                      |  | 0 C         |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-98                      |  | 0.00721     |  | 0.00805 HM  |  | 0.00897 HM  |  | 0.00645 HM  |  | 0.0175 HM   |  | 0.00699     |  | 0.0102 HM   |  | 0.00656 HM  |  | 0.0115      |  | 0.0711 HM   |  |
| PCB-99                      |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-100                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-101                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-102                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-103                     |  | 0.00143     |  | 0.00164 HM  |  | 0.00183 HM  |  | 0.00129 HM  |  | 0.00297 HM  |  | 0.00127     |  | 0.00199 HM  |  | 0.00124 HM  |  | 0.00216     |  | 0.00848 HM  |  |
| PCB-104                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.000584 UH |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00143 UH  |  |
| PCB-105                     |  | 0.0381      |  | 0.0465 HM   |  | 0.0467 HM   |  | 0.0332 HM   |  | 0.0729 HM   |  | 0.0278      |  | 0.0478 HM   |  | 0.0271 HM   |  | 0.0436      |  | 0.293 HM    |  |
| PCB-106                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.000584 UH |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00143 UH  |  |
| PCB-107/124                 |  | 0.00608     |  | 0.00758 HM  |  | 0.00748 HM  |  | 0.00503 HM  |  | 0.0147 HM   |  | 0.00491     |  | 0.00821 HM  |  | 0.00546 HM  |  | 0.00838     |  | 0.0583 HM   |  |
| PCB-108                     |  | 0.00226 C   |  | 0.0028 HM   |  | 0.00277 HM  |  | 0.00192 HM  |  | 0.00522 HM  |  | 0.00201 C   |  | 0.00317 HM  |  | 0.00192 HM  |  | 0.00293 C   |  | 0.0213 HM   |  |
| PCB-109                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-110/115                 |  | 0.111 C     |  | 0.129 HM    |  | 0.139 HM    |  | 0.0999 HM   |  | 0.266 HM    |  | 0.109 C     |  | 0.162 HM    |  | 0.108 HM    |  | 0.169 C     |  | 1.02 HM     |  |
| PCB-111                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.000584 UH |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00143 UH  |  |
| PCB-112                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.000584 UH |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00143 UH  |  |
| PCB-113                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-114                     |  | 0.00249     |  | 0.00309 HM  |  | 0.00311 HM  |  | 0.0022 HM   |  | 0.00493 HM  |  | 0.00176     |  | 0.00318 HM  |  | 0.00186 HM  |  | 0.00287     |  | 0.0246 HM   |  |
| PCB-115                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-117                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-118                     |  | 0.0857      |  | 0.104 HM    |  | 0.103 HM    |  | 0.0751 HM   |  | 0.188 HM    |  | 0.0637      |  | 0.108 HM    |  | 0.0714 HM   |  | 0.102       |  | 0.652 HM    |  |
| PCB-119                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-120                     |  | 0.000289    |  | 0.000585 UH |  | 0.000333 HM |  | 0.000542 UH |  | 0.000604 HM |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.00039     |  | 0.0019 HM   |  |
| PCB-121                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.000584 UH |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00143 UH  |  |
| PCB-122                     |  | 0.001       |  | 0.00128 HM  |  | 0.00126 HM  |  | 0.000856 HM |  | 0.00232 HM  |  | 0.00086     |  | 0.00136 HM  |  | 0.000917 UH |  | 0.00125     |  | 0.0099 HM   |  |
| PCB-123                     |  | 0.00163     |  | 0.00186 HM  |  | 0.00195 HM  |  | 0.00173 HM  |  | 0.00387 HM  |  | 0.00188     |  | 0.000583 UH |  | 0.00148 HM  |  | 0.000353 U  |  | 0.0162 HM   |  |
| PCB-124                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-125                     |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 HM        |  | 0 CE        |  | 0 HM        |  | 0 HM        |  | 0 C         |  | 0 HM        |  |
| PCB-126                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.00107 HM  |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00171 HM  |  |
| PCB-127                     |  | 0.000218 U  |  | 0.000585 UH |  | 0.000256 UH |  | 0.000542 UH |  | 0.000584 UH |  | 0.000475 U  |  | 0.000583 UH |  | 0.000917 UH |  | 0.000353 U  |  | 0.00143 UH  |  |
| PCB-128/166                 |  | 0.00729 C   |  | 0.00862 HM  |  | 0.00886 HM  |  | 0.00614 HM  |  | 0.0161 HM   |  | 0.00697 C   |  | 0.0107 HM   |  | 0.00642 HM  |  | 0.00953 C   |  | 0.054 HM    |  |
| PCB-129/138/160/163         |  | 0.0442 C    |  | 0.0527 HM   |  | 0.0538 HM   |  | 0.038 HM    |  | 0.0942 HM   |  | 0.00414 C   |  | 0.0625 HM   |  | 0.0367 HM   |  | 0.0574 C    |  | 0.297 HM    |  |
| PCB-130                     |  | 0.0029      |  | 0.00351 HM  |  | 0.00361 HM  |  | 0.0025 HM   |  | 0.00632 HM  |  | 0.00276     |  | 0.00401 HM  |  | 0.00217 HM  |  | 0.00376     |  | 0.0226 HM   |  |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte         | Sample ID   |                             |             |             |             |             |             |             |             |            |
|-----------------|-------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
|                 | R2-012-V-Z1 |                             | R2-013-V-Z1 |             | R2-014-V-Z1 |             | R2-015-V-Z1 |             | R3-016-V-Z1 |            |
|                 | Sample Date | Sample Depth Range (ft BGS) | 5/25/2010   | 0-1         | 5/25/2010   | 0-1         | 5/25/2010   | 0-1         | 5/26/2010   | 0-1        |
| PCB-131         | 0.000621    | 0.000757 HM                 | 0.00076 HM  | 0.00076 HM  | 0.000558 HM | 0.00155 HM  | 0.000475 U  | 0.000892 HM | 0.000917 UH | 0.000849   |
| PCB-132         | 0.0159      | 0.019 HM                    | 0.0198 HM   | 0.0198 HM   | 0.0143 HM   | 0.0358 HM   | 0.0159      | 0.0232 HM   | 0.0148 HM   | 0.0229     |
| PCB-133         | 0.00095     | 0.00116 HM                  | 0.00118 HM  | 0.00118 HM  | 0.000816 HM | 0.00151 HM  | 0.000805    | 0.00134 HM  | 0.000917 UH | 0.00133    |
| PCB-134/143     | 0.00315     | 0.00387 HM                  | 0.00394 HM  | 0.00394 HM  | 0.00263 HM  | 0.00761 HM  | 0.00373     | 0.00506 HM  | 0.0028 HM   | 0.00502    |
| PCB-135/151/154 | 0.0134 C    | 0.0161 HM                   | 0.0169 HM   | 0.0169 HM   | 0.0121 HM   | 0.0306 HM   | 0.0142 C    | 0.0201 HM   | 0.013 HM    | 0.0202 C   |
| PCB-136         | 0.00529     | 0.00634 HM                  | 0.00665 HM  | 0.00665 HM  | 0.00485 HM  | 0.0127 HM   | 0.00602     | 0.00829 HM  | 0.00493 HM  | 0.00853    |
| PCB-137         | 0.00228     | 0.00271 HM                  | 0.0028 HM   | 0.0028 HM   | 0.00186 HM  | 0.00483 HM  | 0.00215     | 0.00331 HM  | 0.000917 UH | 0.000353 U |
| PCB-138         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-139/140     | 0.000976 C  | 0.00117 UH                  | 0.00117 UH  | 0.00117 UH  | 0.00108 UH  | 0.00199 HM  | 0.00095 CU  | 0.00138 HM  | 0.00183 UH  | 0.00132 C  |
| PCB-140         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-141         | 0.00589     | 0.00731 HM                  | 0.00726 HM  | 0.00726 HM  | 0.00516 HM  | 0.0145 HM   | 0.00577     | 0.00854 HM  | 0.00523 HM  | 0.00763    |
| PCB-142         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-143         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-144         | 0.00131     | 0.00169 HM                  | 0.0016 HM   | 0.0016 HM   | 0.00128 HM  | 0.0033 HM   | 0.00159     | 0.00204 HM  | 0.00129 HM  | 0.00192    |
| PCB-145         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-146         | 0.00627     | 0.00743 HM                  | 0.00775 HM  | 0.00775 HM  | 0.00552 HM  | 0.0137 HM   | 0.00598     | 0.00894 HM  | 0.0058 HM   | 0.00842    |
| PCB-147/149     | 0.033 C     | 0.039 HM                    | 0.0408 HM   | 0.0408 HM   | 0.0297 HM   | 0.0723 HM   | 0.0338 C    | 0.048 HM    | 0.0303 HM   | 0.0471 C   |
| PCB-148         | 0.000218 U  | 0.000585 UH                 | 0.000286 HM | 0.000286 HM | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-149         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-150         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-151         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-152         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-153/168     | 0.0302 C    | 0.036 HM                    | 0.0363 HM   | 0.0363 HM   | 0.026 HM    | 0.0672 HM   | 0.0287 C    | 0.0418 HM   | 0.0279 HM   | 0.039 C    |
| PCB-154         | 0.000944    | 0.00111 HM                  | 0.00118 HM  | 0.00118 HM  | 0.000899 HM | 0.00151 HM  | 0.000843    | 0.00131 HM  | 0.000917 UH | 0.00137    |
| PCB-155         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-156/157     | 0.00721 C   | 0.00877 HM                  | 0.00856 HM  | 0.00856 HM  | 0.00593 HM  | 0.0141 HM   | 0.00516 C   | 0.00856 HM  | 0.00505 HM  | 0.00747 C  |
| PCB-157         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-158         | 0.00421     | 0.00498 HM                  | 0.00504 HM  | 0.00504 HM  | 0.0036 HM   | 0.00923 HM  | 0.0038      | 0.00573 HM  | 0.00358 HM  | 0.00531    |
| PCB-159         | 0.000258    | 0.000585 UH                 | 0.000278 HM | 0.000278 HM | 0.000542 UH | 0.000641 HM | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-160         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-161         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-162         | 0.000292    | 0.000585 UH                 | 0.000335 HM | 0.000335 HM | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-163         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-164         | 0.00262     | 0.00322 HM                  | 0.00324 HM  | 0.00324 HM  | 0.00234 HM  | 0.00578 HM  | 0.00247     | 0.00349 HM  | 0.000917 UH | 0.00341    |
| PCB-165         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-166         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-167         | 0.00213     | 0.00258 HM                  | 0.00248 HM  | 0.00248 HM  | 0.00175 HM  | 0.00413 HM  | 0.00165     | 0.00252 HM  | 0.00157 HM  | 0.0022     |
| PCB-168         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |
| PCB-169         | 0.000218 U  | 0.000585 UH                 | 0.000256 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |
| PCB-170         | 0.00675     | 0.00797 HM                  | 0.00788 HM  | 0.00788 HM  | 0.00538 HM  | 0.015 HM    | 0.00529     | 0.00792 HM  | 0.00556 HM  | 0.00708    |
| PCB-171/173     | 0.00201 C   | 0.00248 HM                  | 0.00237 HM  | 0.00237 HM  | 0.00165 HM  | 0.00483 HM  | 0.00174 C   | 0.00267 HM  | 0.00183 UH  | 0.00243 C  |
| PCB-172         | 0.0012      | 0.00143 HM                  | 0.00136 HM  | 0.00136 HM  | 0.000941 HM | 0.00283 HM  | 0.00106     | 0.00152 HM  | 0.001 HM    | 0.00134    |
| PCB-173         | 0 CE        | 0 HM                        | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |

Key at the end of Table

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Sample ID                   |            | R2-012-V-Z1 |             | R2-013-V-Z1 |             | R2-014-V-Z1 |             | R2-015-V-Z1 |            | R3-016-V-Z1 |  | R3-017-V-Z1 |  | R3-018-V-Z1 |  | R3-019-V-Z1 |  | R3-020-V-Z1 |  | R3-020-V-Z2 |            |
|-----------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|-------------|------------|
| Sample Date                 |            | 5/25/2010   |             | 5/25/2010   |             | 5/25/2010   |             | 5/25/2010   |            | 5/25/2010   |  | 5/26/2010   |  | 5/25/2010   |  | 5/26/2010   |  | 5/26/2010   |  | 5/26/2010   |            |
| Sample Depth Range (ft BGS) |            | 0-1         |             | 0-1         |             | 0-1         |             | 0-1         |            | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 0-1         |  | 1-2         |            |
| Analyte                     |            |             |             |             |             |             |             |             |            |             |  |             |  |             |  |             |  |             |  |             |            |
| PCB-174                     | 0.00704    | 0.00858 HM  | 0.00836 HM  | 0.00577 HM  | 0.0189 HM   | 0.00683     | 0.00943 HM  | 0.00706 HM  | 0.00886    |             |  |             |  |             |  |             |  |             |  |             | 0.0347 HM  |
| PCB-175                     | 0.000312   | 0.000585 UH | 0.000369 HM | 0.000542 UH | 0.000733 HM | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000361   |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-176                     | 0.000993   | 0.00118 HM  | 0.00115 HM  | 0.000837 HM | 0.00243 HM  | 0.000945    | 0.00129 HM  | 0.000917 UH | 0.00123    |             |  |             |  |             |  |             |  |             |  |             | 0.00527 HM |
| PCB-177                     | 0.00441    | 0.00517 HM  | 0.00523 HM  | 0.00365 HM  | 0.0103 HM   | 0.00416     | 0.00582 HM  | 0.00341 HM  | 0.00547    |             |  |             |  |             |  |             |  |             |  |             | 0.0208 HM  |
| PCB-178                     | 0.00207    | 0.00253 HM  | 0.00247 HM  | 0.00178 HM  | 0.00445 HM  | 0.00202     | 0.00281 HM  | 0.00186 HM  | 0.00272    |             |  |             |  |             |  |             |  |             |  |             | 0.00795 HM |
| PCB-179                     | 0.00355    | 0.00429 HM  | 0.00419 HM  | 0.00308 HM  | 0.00889 HM  | 0.00351     | 0.00484 HM  | 0.00327 HM  | 0.00464    |             |  |             |  |             |  |             |  |             |  |             | 0.0164 HM  |
| PCB-180/193                 | 0.0165 C   | 0.0191 HM   | 0.0189 HM   | 0.0128 HM   | 0.0379 HM   | 0.0134 C    | 0.0191 HM   | 0.0135 HM   | 0.0176 C   |             |  |             |  |             |  |             |  |             |  |             | 0.074 HM   |
| PCB-181                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-182                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-183/185                 | 0.0048 C   | 0.00559 HM  | 0.00561 HM  | 0.00392 HM  | 0.013 HM    | 0.00475 C   | 0.00658 HM  | 0.00469 HM  | 0.00607 C  |             |  |             |  |             |  |             |  |             |  |             | 0.024 HM   |
| PCB-184                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-185                     | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |             |  |             |  |             |  |             |  |             |  |             | 0 HM       |
| PCB-186                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-187                     | 0.0105     | 0.0123 HM   | 0.0123 HM   | 0.00866 HM  | 0.0254 HM   | 0.0104      | 0.0146 HM   | 0.00971 HM  | 0.0137     |             |  |             |  |             |  |             |  |             |  |             | 0.0426 HM  |
| PCB-188                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-189                     | 0.000337   | 0.000585 UH | 0.000364 HM | 0.000542 UH | 0.00073 HM  | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00159 HM |
| PCB-190                     | 0.00144    | 0.0017 HM   | 0.00172 HM  | 0.00113 HM  | 0.00311 HM  | 0.00112     | 0.00161 HM  | 0.000917 UH | 0.00144    |             |  |             |  |             |  |             |  |             |  |             | 0.00646 HM |
| PCB-191                     | 0.000274   | 0.000585 UH | 0.000318 HM | 0.000542 UH | 0.000585 HM | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00149 HM |
| PCB-192                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-193                     | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |             |  |             |  |             |  |             |  |             |  |             | 0 HM       |
| PCB-194                     | 0.00473    | 0.00562 HM  | 0.00514 HM  | 0.00383 HM  | 0.00988 HM  | 0.00365     | 0.00514 HM  | 0.00383 HM  | 0.00431    |             |  |             |  |             |  |             |  |             |  |             | 0.0154 HM  |
| PCB-195                     | 0.00162    | 0.00216 HM  | 0.00185 HM  | 0.00146 HM  | 0.00348 HM  | 0.00103     | 0.00177 HM  | 0.00126 HM  | 0.00157    |             |  |             |  |             |  |             |  |             |  |             | 0.00611 HM |
| PCB-196                     | 0.00254    | 0.003 HM    | 0.00281 HM  | 0.00195 HM  | 0.0052 HM   | 0.00215     | 0.00279 HM  | 0.00214 HM  | 0.00235    |             |  |             |  |             |  |             |  |             |  |             | 0.00929 HM |
| PCB-197/200                 | 0.000892 C | 0.00117 UH  | 0.00099 HM  | 0.00108 UH  | 0.00201 HM  | 0.00095 CU  | 0.00117 UH  | 0.00183 UH  | 0.000913 C |             |  |             |  |             |  |             |  |             |  |             | 0.00325 HM |
| PCB-198/199                 | 0.00684 C  | 0.00786 HM  | 0.00764 HM  | 0.00538 HM  | 0.0138 HM   | 0.00715 C   | 0.00788 HM  | 0.00512 HM  | 0.00671 C  |             |  |             |  |             |  |             |  |             |  |             | 0.0244 HM  |
| PCB-199                     | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |             |  |             |  |             |  |             |  |             |  |             | 0 HM       |
| PCB-200                     | 0 CE       | 0 HM        | 0 HM        | 0 HM        | 0 HM        | 0 CE        | 0 HM        | 0 HM        | 0 C        |             |  |             |  |             |  |             |  |             |  |             | 0 HM       |
| PCB-201                     | 0.000737   | 0.000922 HM | 0.000888 HM | 0.000621 HM | 0.00168 HM  | 0.0008      | 0.000941 HM | 0.000917 UH | 0.000807   |             |  |             |  |             |  |             |  |             |  |             | 0.003 HM   |
| PCB-202                     | 0.0018     | 0.00198 HM  | 0.00209 HM  | 0.00146 HM  | 0.00324 HM  | 0.0021      | 0.00197 HM  | 0.00133 HM  | 0.00175    |             |  |             |  |             |  |             |  |             |  |             | 0.00524 HM |
| PCB-203                     | 0.00375    | 0.00434 HM  | 0.00414 HM  | 0.00291 HM  | 0.00763 HM  | 0.0035      | 0.00423 HM  | 0.00313 HM  | 0.00357    |             |  |             |  |             |  |             |  |             |  |             | 0.0138 HM  |
| PCB-204                     | 0.000218 U | 0.000585 UH | 0.000256 UH | 0.000542 UH | 0.000584 UH | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-205                     | 0.000284   | 0.000585 UH | 0.000324 HM | 0.000542 UH | 0.000687 HM | 0.000475 U  | 0.000583 UH | 0.000917 UH | 0.000353 U |             |  |             |  |             |  |             |  |             |  |             | 0.00143 UH |
| PCB-206                     | 0.00782    | 0.00881 HM  | 0.00987 HM  | 0.00654 HM  | 0.017 HM    | 0.0192      | 0.011 HM    | 0.00839 HM  | 0.00891    |             |  |             |  |             |  |             |  |             |  |             | 0.038 HM   |
| PCB-207                     | 0.000705   | 0.000829 HM | 0.000763 HM | 0.000657 HM | 0.00151 HM  | 0.0013      | 0.000892 HM | 0.000917 UH | 0.000752   |             |  |             |  |             |  |             |  |             |  |             | 0.00376 HM |
| PCB-208                     | 0.00337    | 0.00377 HM  | 0.00429 HM  | 0.00265 HM  | 0.00695 HM  | 0.0091      | 0.00476 HM  | 0.00368 HM  | 0.00378    |             |  |             |  |             |  |             |  |             |  |             | 0.0167 HM  |
| PCB-209                     | 0.0148     | 0.0169 HM   | 0.0191 HM   | 0.0119 HM   | 0.0366 HM   | 0.0305      | 0.0178 HM   | 0.0206 HM   | 0.0174     |             |  |             |  |             |  |             |  |             |  |             | 0.108 HM   |
| TOTAL PCB CONGENERS         |            | 2.36        | 2.77 HM     | 2.95 HM     | 2.1 HM      | 2.44        | 3.35 HM     | 2.5 HM      | 3.84       |             |  |             |  |             |  |             |  |             |  |             | 35.9 HM    |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                            | Sample ID R3-020-V-Z3 R3-020-V-Z4 R3-020-V-Z5 R3-020-V-Z6 R3-020-V-Z7 R3-021-V-Z1 R3-022-V-Z1 R3-023-V-Z1 R3-024-V-Z1 R3-025-V-Z1 |           |                       |             |                       |              |                       |              |                       |             |                       |     |                       |  |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------|-------------|-----------------------|--------------|-----------------------|--------------|-----------------------|-------------|-----------------------|-----|-----------------------|--|
|                                    | Sample Date 5/26/2010                                                                                                             |           | Sample Date 5/26/2010 |             | Sample Date 5/26/2010 |              | Sample Date 5/26/2010 |              | Sample Date 5/26/2010 |             | Sample Date 5/26/2010 |     | Sample Date 5/26/2010 |  |
|                                    | 2-3                                                                                                                               |           | 3-4                   |             | 4-6                   |              | 6-8                   |              | 8-10                  |             | 0-1                   |     | 0-1                   |  |
| Sample Depth Range (ft BGS)        |                                                                                                                                   |           |                       |             |                       |              |                       |              |                       |             |                       | 0-1 | 0-1                   |  |
| PCB Congeners by HRGC/HRMS (mg/kg) |                                                                                                                                   |           |                       |             |                       |              |                       |              |                       |             |                       |     |                       |  |
| PCB-1                              | 0.15 HM                                                                                                                           | 0.00879   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.0000305    | 0.00972               | 0.0000177 U  | 0.00379 HM            | 0.000246    |                       |     |                       |  |
| PCB-2                              | 0.0261 HM                                                                                                                         | 0.00168   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000461   | 0.000724              | 0.0000177 U  | 0.00146 HM            | 0.0000211 U |                       |     |                       |  |
| PCB-3                              | 0.133 HM                                                                                                                          | 0.008     | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.0000278    | 0.00445               | 0.0000177 U  | 0.00671 HM            | 0.0000791   |                       |     |                       |  |
| PCB-4                              | 0.205 HM                                                                                                                          | 0.0327    | 0.00425               | 0.00042 U   | 0.0000726 U           | 0.0000372    | 0.0733                | 0.0000298    | 0.0407 HM             | 0.00201     |                       |     |                       |  |
| PCB-5                              | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000374   | 0.000832              | 0.0000177 U  | 0.00069 UH            | 0.0000211 U |                       |     |                       |  |
| PCB-6                              | 0.44 HM                                                                                                                           | 0.0216    | 0.00237               | 0.00042 U   | 0.0000726 U           | 0.000102     | 0.0186                | 0.0000177 U  | 0.0219 HM             | 0.000283    |                       |     |                       |  |
| PCB-7                              | 0.0371 HM                                                                                                                         | 0.00338   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00164               | 0.0000177 U  | 0.00198 HM            | 0.0000211 U |                       |     |                       |  |
| PCB-8                              | 0.549 HM                                                                                                                          | 0.0752    | 0.011                 | 0.000753    | 0.0000726 U           | 0.0000162    | 0.0182                | 0.0000328    | 0.0255 HM             | 0.000318    |                       |     |                       |  |
| PCB-9                              | 0.0455 HM                                                                                                                         | 0.00471   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00373               | 0.0000177 U  | 0.00248 HM            | 0.0000211 U |                       |     |                       |  |
| PCB-10                             | 0.0251 HM                                                                                                                         | 0.00292   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.0000308    | 0.00039 U             | 0.0000177 U  | 0.00069 UH            | 0.0000211 U |                       |     |                       |  |
| PCB-11                             | 0.0649 UH                                                                                                                         | 0.048 U   | 0.0487 U              | 0.021 U     | 0.00363 U             | 0.000144 U   | 0.0195 U              | 0.0000883 U  | 0.0345 UH             | 0.00105 U   |                       |     |                       |  |
| PCB-12/13                          | 0.0762 HM                                                                                                                         | 0.00817 C | 0.00195 CU            | 0.000841 CU | 0.000145 CU           | 0.0000958 C  | 0.00934 C             | 0.0000353 CU | 0.0154 HM             | 0.000221 C  |                       |     |                       |  |
| PCB-13                             | 0 HM                                                                                                                              | 0 CE      | 0 CE                  | 0 CE        | 0 CE                  | 0 CE         | 0 CE                  | 0 CE         | 0 HM                  | 0 CE        |                       |     |                       |  |
| PCB-14                             | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00039 U             | 0.0000177 U  | 0.00069 UH            | 0.0000211 U |                       |     |                       |  |
| PCB-15                             | 0.279 HM                                                                                                                          | 0.0517    | 0.00682               | 0.0021 U    | 0.000363 U            | 0.000416     | 0.0265                | 0.0000883 U  | 0.0654 HM             | 0.00109     |                       |     |                       |  |
| PCB-16                             | 0.45 HM                                                                                                                           | 0.113     | 0.0189                | 0.000773    | 0.0000726 U           | 0.000141     | 0.0134                | 0.0000177 U  | 0.0201 HM             | 0.000246    |                       |     |                       |  |
| PCB-17                             | 0.789 HM                                                                                                                          | 0.219     | 0.0401                | 0.00138     | 0.0000726 U           | 0.000657     | 0.0756                | 0.0000421    | 0.11 HM               | 0.00119     |                       |     |                       |  |
| PCB-18/30                          | 1.4 HM                                                                                                                            | 0.374 C   | 0.0678 C              | 0.00245 C   | 0.000145 CU           | 0.000623 C   | 0.0668 C              | 0.0000461 C  | 0.104 HM              | 0.00126 C   |                       |     |                       |  |
| PCB-19                             | 0.117 HM                                                                                                                          | 0.0282    | 0.00444               | 0.00042 U   | 0.0000726 U           | 0.000256     | 0.0269                | 0.0000177 U  | 0.0326 HM             | 0.000439    |                       |     |                       |  |
| PCB-20/28                          | 2.44 HM                                                                                                                           | 0.664 C   | 0.137 C               | 0.00453 C   | 0.000726 CU           | 0.00116 C    | 0.127 C               | 0.000177 CU  | 0.223 HM              | 0.0025 C    |                       |     |                       |  |
| PCB-21/33                          | 0.774 HM                                                                                                                          | 0.255 C   | 0.0526 C              | 0.0042 CU   | 0.000726 CU           | 0.000244 C   | 0.0193 C              | 0.000177 CU  | 0.042 HM              | 0.000357 C  |                       |     |                       |  |
| PCB-22                             | 0.686 HM                                                                                                                          | 0.171     | 0.0333                | 0.0021 U    | 0.000363 U            | 0.000228     | 0.0176                | 0.0000883 U  | 0.0377 HM             | 0.000404    |                       |     |                       |  |
| PCB-23                             | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00039 U             | 0.0000177 U  | 0.00069 UH            | 0.0000211 U |                       |     |                       |  |
| PCB-24                             | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00039 U             | 0.0000177 U  | 0.00069 UH            | 0.0000211 U |                       |     |                       |  |
| PCB-25                             | 0.441 HM                                                                                                                          | 0.0483    | 0.00665               | 0.00051     | 0.0000726 U           | 0.000404     | 0.0437                | 0.0000363    | 0.0899 HM             | 0.000934    |                       |     |                       |  |
| PCB-26/29                          | 0.734 HM                                                                                                                          | 0.0929 C  | 0.014 C               | 0.000928 C  | 0.000145 CU           | 0.000702 C   | 0.0742 C              | 0.0000563 C  | 0.143 HM              | 0.00156 C   |                       |     |                       |  |
| PCB-27                             | 0.121 HM                                                                                                                          | 0.03      | 0.00507               | 0.00042 U   | 0.0000726 U           | 0.000274     | 0.0256                | 0.0000177 U  | 0.0393 HM             | 0.000503    |                       |     |                       |  |
| PCB-28                             | 0 HM                                                                                                                              | 0 CE      | 0 CE                  | 0 CE        | 0 CE                  | 0 CE         | 0 CE                  | 0 CE         | 0 HM                  | 0 CE        |                       |     |                       |  |
| PCB-30                             | 0 HM                                                                                                                              | 0 CE      | 0 CE                  | 0 CE        | 0 CE                  | 0 CE         | 0 CE                  | 0 CE         | 0 HM                  | 0 CE        |                       |     |                       |  |
| PCB-31                             | 1.95 HM                                                                                                                           | 0.519     | 0.102                 | 0.00369     | 0.000363 U            | 0.00113      | 0.115                 | 0.000109     | 0.227 HM              | 0.00219     |                       |     |                       |  |
| PCB-32                             | 0.404 HM                                                                                                                          | 0.109     | 0.0208                | 0.000739    | 0.0000726 U           | 0.000358     | 0.044                 | 0.0000252    | 0.0635 HM             | 0.000561    |                       |     |                       |  |
| PCB-33                             | 0 HM                                                                                                                              | 0 CE      | 0 CE                  | 0 CE        | 0 CE                  | 0 CE         | 0 CE                  | 0 CE         | 0 HM                  | 0 CE        |                       |     |                       |  |
| PCB-34                             | 0.0304 HM                                                                                                                         | 0.00835   | 0.0015                | 0.00042 U   | 0.0000726 U           | 0.0000178    | 0.00202               | 0.0000177 U  | 0.00348 HM            | 0.0000292   |                       |     |                       |  |
| PCB-35                             | 0.0171 HM                                                                                                                         | 0.00349   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000664   | 0.000765              | 0.0000177 U  | 0.00125 HM            | 0.0000211 U |                       |     |                       |  |
| PCB-36                             | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00039 U             | 0.0000177 U  | 0.00069 UH            | 0.0000667   |                       |     |                       |  |
| PCB-37                             | 0.496 HM                                                                                                                          | 0.136     | 0.0235                | 0.0021 U    | 0.000363 U            | 0.00022      | 0.0243                | 0.0000883 U  | 0.0466 HM             | 0.000056    |                       |     |                       |  |
| PCB-38                             | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000287 U | 0.00039 U             | 0.0000177 U  | 0.00069 UH            | 0.0000211 U |                       |     |                       |  |
| PCB-39                             | 0.0102 HM                                                                                                                         | 0.00293   | 0.000973 U            | 0.00042 U   | 0.0000726 U           | 0.00000626   | 0.000972              | 0.0000177 U  | 0.00114 HM            | 0.0000211 U |                       |     |                       |  |
| PCB-40/41/71                       | 0.818 HM                                                                                                                          | 0.242 C   | 0.0481 C              | 0.00157 C   | 0.0000726 CU          | 0.000624 C   | 0.119 C               | 0.0000471 C  | 0.136 HM              | 0.00122 C   |                       |     |                       |  |
| PCB-41                             | 0.0649 UH                                                                                                                         | 0.048 U   | 0.0487 U              | 0.021 U     | 0.00363 U             | 0.000144 U   | 0.0195 U              | 0.0000883 U  | 0.0345 UH             | 0.00105 U   |                       |     |                       |  |
| PCB-42                             | 0.6 HM                                                                                                                            | 0.19      | 0.0381                | 0.0011      | 0.0000726 U           | 0.000421     | 0.0739                | 0.0000177 U  | 0.0885 HM             | 0.000879    |                       |     |                       |  |
| PCB-43                             | 0.117 HM                                                                                                                          | 0.033     | 0.00662               | 0.00042 U   | 0.0000726 U           | 0.0000791    | 0.016                 | 0.0000177 U  | 0.0152 HM             | 0.000175    |                       |     |                       |  |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID  |           | Sample Date |             | Sample Depth Range (ft BGS) |              | R3-020-V-Z3 | R3-020-V-Z4  | R3-020-V-Z5 | R3-020-V-Z6 | R3-020-V-Z7 | R3-021-V-Z1 | R3-022-V-Z1 | R3-023-V-Z1 | R3-024-V-Z1 | R3-025-V-Z1 |
|--------------------------|------------|-----------|-------------|-------------|-----------------------------|--------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                          | 5/26/2010  | 2-3       | 5/26/2010   | 3-4         | 5/26/2010                   | 4-6          | 5/26/2010   | 5/26/2010    | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   | 5/26/2010   |
| PCB-44/47/65             | 2.1 HM     | 0.678 C   | 0.152 C     | 0.00443 C   | 0.000218 CU                 | 0.00169 C    | 0.303 C     | 0.000155 C   | 0.354 HM    | 0.00343 C   |             |             |             |             |             |             |
| PCB-45/51                | 0.394 HM   | 0.116 C   | 0.0218 C    | 0.000841 CU | 0.000145 CU                 | 0.000315 C   | 0.0584 C    | 0.0000354 C  | 0.0691 HM   | 0.000561 C  |             |             |             |             |             |             |
| PCB-46                   | 0.146 HM   | 0.0432    | 0.00829     | 0.00042 U   | 0.0000726 U                 | 0.000108     | 0.0171      | 0.0000177 U  | 0.0213 HM   | 0.000175    |             |             |             |             |             |             |
| PCB-47                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-48                   | 0.404 HM   | 0.137     | 0.026       | 0.000831    | 0.0000726 U                 | 0.000177     | 0.0463      | 0.0000177 U  | 0.0356 HM   | 0.000336    |             |             |             |             |             |             |
| PCB-49/69                | 1.37 HM    | 0.46 C    | 0.111 C     | 0.00288 C   | 0.000145 CU                 | 0.00127 C    | 0.208 C     | 0.0000837 C  | 0.27 HM     | 0.00247 C   |             |             |             |             |             |             |
| PCB-50/53                | 0.296 HM   | 0.0911 C  | 0.0179 C    | 0.000841 CU | 0.000145 CU                 | 0.000307 C   | 0.0496 C    | 0.0000353 CU | 0.0676 HM   | 0.000557 C  |             |             |             |             |             |             |
| PCB-51                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-52                   | 2.23 HM    | 0.775     | 0.201       | 0.00571     | 0.000119                    | 0.002        | 0.367       | 0.000142     | 0.423 HM    | 0.00412     |             |             |             |             |             |             |
| PCB-53                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-54                   | 0.00446 HM | 0.00121   | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.0000145    | 0.00136     | 0.0000177 U  | 0.0022 HM   | 0.0000222   |             |             |             |             |             |             |
| PCB-55                   | 0.0013 UH  | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.0000287 U  | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U |             |             |             |             |             |             |
| PCB-56                   | 0.727 HM   | 0.251     | 0.0515      | 0.00182     | 0.0000726 U                 | 0.000411     | 0.0867      | 0.0000351    | 0.0864 HM   | 0.000794    |             |             |             |             |             |             |
| PCB-57                   | 0.0129 HM  | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.000016     | 0.00187     | 0.0000177 U  | 0.00371 HM  | 0.000028    |             |             |             |             |             |             |
| PCB-58                   | 0.00853 HM | 0.00303   | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.00000658   | 0.00098     | 0.0000177 U  | 0.00069 UH  | 0.000046    |             |             |             |             |             |             |
| PCB-59/62/75             | 0.177 HM   | 0.0523 C  | 0.00953 C   | 0.00126 CU  | 0.000218 CU                 | 0.000133 C   | 0.0248 C    | 0.000053 CU  | 0.0275 HM   | 0.000286 C  |             |             |             |             |             |             |
| PCB-60                   | 0.0646 HM  | 0.00731   | 0.00267     | 0.000428    | 0.0000726 U                 | 0.000116     | 0.0261      | 0.0000177 U  | 0.0182 HM   | 0.000226    |             |             |             |             |             |             |
| PCB-61/70/74/76          | 2.52 HM    | 0.909 C   | 0.215 C     | 0.00711 C   | 0.00029 CU                  | 0.00148 C    | 0.3 C       | 0.000122 C   | 0.309 HM    | 0.00276 C   |             |             |             |             |             |             |
| PCB-62                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-63                   | 0.0807 HM  | 0.0233    | 0.00465     | 0.00042 U   | 0.0000726 U                 | 0.0000613    | 0.0089      | 0.0000177 U  | 0.0133 HM   | 0.000106    |             |             |             |             |             |             |
| PCB-64                   | 0.914 HM   | 0.288     | 0.0582      | 0.00188     | 0.0000726 U                 | 0.000623     | 0.122       | 0.0000441    | 0.135 HM    | 0.00124     |             |             |             |             |             |             |
| PCB-65                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-66                   | 1.58 HM    | 0.586     | 0.137       | 0.00414     | 0.000363 U                  | 0.000981     | 0.194       | 0.0000883 U  | 0.209 HM    | 0.00206     |             |             |             |             |             |             |
| PCB-67                   | 0.0525 HM  | 0.0123    | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.0000273    | 0.00484     | 0.0000177 U  | 0.00635 HM  | 0.000055    |             |             |             |             |             |             |
| PCB-68                   | 0.0129 HM  | 0.0048    | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.0000139    | 0.00206     | 0.0000177 U  | 0.00442 HM  | 0.0000386   |             |             |             |             |             |             |
| PCB-69                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-70                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-71                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-72                   | 0.0199 HM  | 0.00825   | 0.00231     | 0.00042 U   | 0.0000726 U                 | 0.0000283    | 0.00326     | 0.0000177 U  | 0.00634 HM  | 0.0000578   |             |             |             |             |             |             |
| PCB-73                   | 0.0013 UH  | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U |             |             |             |             |             |             |
| PCB-74                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-75                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-76                   | 0 HM       | 0 CE      | 0 CE        | 0 CE        | 0 CE                        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE        |             |             |             |             |             |             |
| PCB-77                   | 0.128 HM   | 0.035     | 0.0071      | 0.00042 U   | 0.0000726 U                 | 0.0000786    | 0.0149      | 0.0000177 U  | 0.0202 HM   | 0.000213    |             |             |             |             |             |             |
| PCB-78                   | 0.0013 UH  | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U |             |             |             |             |             |             |
| PCB-79                   | 0.0106 HM  | 0.00232   | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.00000287 U | 0.000598    | 0.0000177 U  | 0.00108 HM  | 0.0000211 U |             |             |             |             |             |             |
| PCB-80                   | 0.0013 UH  | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U |             |             |             |             |             |             |
| PCB-81                   | 0.0013 UH  | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U                 | 0.00000287 U | 0.000439    | 0.0000177 U  | 0.00069 UH  | 0.0000211 U |             |             |             |             |             |             |
| PCB-82                   | 0.111 HM   | 0.03      | 0.00872     | 0.000561    | 0.0000726 U                 | 0.000112     | 0.0231      | 0.0000177 U  | 0.0236 HM   | 0.000213    |             |             |             |             |             |             |
| PCB-83/99                | 0.0505 HM  | 0.0216    | 0.00718     | 0.00042 U   | 0.0000726 U                 | 0.0000561    | 0.0107      | 0.0000177 U  | 0.0121 HM   | 0.000111    |             |             |             |             |             |             |
| PCB-84                   | 0.329 HM   | 0.13      | 0.0399      | 0.00137     | 0.0000726 U                 | 0.000322     | 0.0585      | 0.0000315    | 0.075 HM    | 0.000576    |             |             |             |             |             |             |
| PCB-85/116/117           | 0.144 HM   | 0.0449 C  | 0.0149 C    | 0.00126 CU  | 0.000218 CU                 | 0.000188 C   | 0.0283 C    | 0.000053 CU  | 0.0349 HM   | 0.000328 C  |             |             |             |             |             |             |
| PCB-86/87/97/108/119/125 | 0.534 HM   | 0.206 C   | 0.0702 C    | 0.0028 C    | 0.000436 CU                 | 0.00055 C    | 0.102 C     | 0.000106 CU  | 0.111 HM    | 0.000968 C  |             |             |             |             |             |             |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte              | Sample ID R3-020-V-Z3 R3-020-V-Z4 R3-020-V-Z5 R3-020-V-Z6 R3-020-V-Z7 R3-021-V-Z1 R3-022-V-Z1 R3-023-V-Z1 R3-024-V-Z1 R3-025-V-Z1 |            |                                 |             |                                 |              |                                 |              |                                  |              |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------|-------------|---------------------------------|--------------|---------------------------------|--------------|----------------------------------|--------------|
|                      | Sample Date 5/26/2010                                                                                                             |            | Sample Date 5/26/2010           |             | Sample Date 5/26/2010           |              | Sample Date 5/26/2010           |              | Sample Date 5/26/2010            |              |
|                      | Sample Depth Range (ft BGS) 2-3                                                                                                   |            | Sample Depth Range (ft BGS) 3-4 |             | Sample Depth Range (ft BGS) 4-6 |              | Sample Depth Range (ft BGS) 6-8 |              | Sample Depth Range (ft BGS) 8-10 |              |
| PCB-87               | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 CE                             | 0 CE         |
| PCB-88/91            | 0.18 HM                                                                                                                           | 0.0655 C   | 0.0192 C                        | 0.00841 CU  | 0.00145 CU                      | 0.000201 C   | 0.0322 C                        | 0.0000353 CU | 0.0485 HM                        | 0.00034 C    |
| PCB-89               | 0.0315 HM                                                                                                                         | 0.00893    | 0.00199                         | 0.00042 U   | 0.0000726 U                     | 0.0000228    | 0.0047                          | 0.0000177 U  | 0.00514 HM                       | 0.0000404    |
| PCB-90/101/113       | 0.753 HM                                                                                                                          | 0.362 C    | 0.135 C                         | 0.00469 C   | 0.000218 CU                     | 0.000723 C   | 0.128 C                         | 0.0000928 C  | 0.148 HM                         | 0.00123 C    |
| PCB-91               | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-92               | 0 HM                                                                                                                              | 0          | 0                               | 0           | 0 U                             | 0            | 0                               | 0            | 0 HM                             | 0            |
| PCB-93/95/98/100/102 | 0.16 HM                                                                                                                           | 0.0748 CU  | 0.0262 CU                       | 0.000811 CU | 0.0000726 CU                    | 0.00019 C    | 0.0282 C                        | 0.0000216 CU | 0.0414 HM                        | 0.000321 CU  |
| PCB-94               | 0.0145 HM                                                                                                                         | 0.00192    | 0.00195 U                       | 0.000841 U  | 0.000145 U                      | 0.0000223    | 0.003                           | 0.0000353 U  | 0.0053 HM                        | 0.0000422    |
| PCB-95               | 0.00894 HM                                                                                                                        | 0.00275    | 0.000973                        | 0.00042     | 0.0000726 U                     | 0.0000143    | 0.00202                         | 0.0000177    | 0.00356 HM                       | 0.0000232    |
| PCB-96               | 0.648 HM                                                                                                                          | 0.302      | 0.107                           | 0.00381 U   | 0.0000726 U                     | 0.000678     | 0.127                           | 0.0000813 U  | 0.157 HM                         | 0.00121      |
| PCB-97               | 0.0152 HM                                                                                                                         | 0.00475 CE | 0.00105 CE                      | 0.00042 CE  | 0.0000726 CE                    | 0.000015 CE  | 0.00281 CE                      | 0.0000177 CE | 0.00379 HM                       | 0.0000261 CE |
| PCB-98               | 0 HM                                                                                                                              | 0 C        | 0 C                             | 0 CU        | 0 CU                            | 0 C          | 0 C                             | 0 CU         | 0 HM                             | 0 C          |
| PCB-99               | 0.0598 HM                                                                                                                         | 0.0205     | 0.00524                         | 0.000841    | 0.000145 U                      | 0.0000649    | 0.0111                          | 0.0000353    | 0.0159 HM                        | 0.000114     |
| PCB-100              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-101              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-102              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-103              | 0.00932 HM                                                                                                                        | 0.0052     | 0.00171                         | 0.00042 U   | 0.0000726 U                     | 0.000013     | 0.00164                         | 0.0000177 U  | 0.00306 HM                       | 0.0000226    |
| PCB-104              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-105              | 0.189 HM                                                                                                                          | 0.0564     | 0.0217                          | 0.0015      | 0.0000726 U                     | 0.000257     | 0.0464                          | 0.0000298    | 0.0544 HM                        | 0.000547     |
| PCB-106              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-107/124          | 0.0658 HM                                                                                                                         | 0.0239     | 0.00898                         | 0.00042 U   | 0.0000726 U                     | 0.0000542    | 0.00786                         | 0.0000177 U  | 0.0106 HM                        | 0.0000884    |
| PCB-108              | 0.0134 HM                                                                                                                         | 0.00513 C  | 0.00205 C                       | 0.000841 CU | 0.000145 CU                     | 0.0000189 C  | 0.0035 C                        | 0.0000353 CU | 0.00388 HM                       | 0.0000422 CU |
| PCB-109              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-110/115          | 0.988 HM                                                                                                                          | 0.42 C     | 0.153 C                         | 0.00542 C   | 0.000145 CU                     | 0.00105 C    | 0.182 C                         | 0.000114 C   | 0.231 HM                         | 0.00019 C    |
| PCB-111              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-112              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-113              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-114              | 0.0138 HM                                                                                                                         | 0.00358    | 0.00148                         | 0.00042 U   | 0.0000726 U                     | 0.0000171    | 0.00284                         | 0.0000177 U  | 0.00346 HM                       | 0.0000312    |
| PCB-115              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-117              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-118              | 0.707 HM                                                                                                                          | 0.291      | 0.111                           | 0.00418     | 0.0000726 U                     | 0.0006       | 0.108                           | 0.0000699    | 0.138 HM                         | 0.00122      |
| PCB-119              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-120              | 0.00336 HM                                                                                                                        | 0.00185    | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-121              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-122              | 0.00572 HM                                                                                                                        | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000844   | 0.00136                         | 0.0000177 U  | 0.00162 HM                       | 0.0000211 U  |
| PCB-123              | 0.00931 HM                                                                                                                        | 0.00449    | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.0000108    | 0.00248                         | 0.0000177 U  | 0.00069 UH                       | 0.0000272    |
| PCB-124              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-125              | 0 HM                                                                                                                              | 0 CE       | 0 CE                            | 0 CE        | 0 CE                            | 0 CE         | 0 CE                            | 0 CE         | 0 HM                             | 0 CE         |
| PCB-126              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.000517                        | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-127              | 0.0013 UH                                                                                                                         | 0.00096 U  | 0.000973 U                      | 0.00042 U   | 0.0000726 U                     | 0.00000287 U | 0.00039 U                       | 0.0000177 U  | 0.00069 UH                       | 0.0000211 U  |
| PCB-128/166          | 0.0484 HM                                                                                                                         | 0.0269 C   | 0.0117 C                        | 0.000841 CU | 0.000145 CU                     | 0.0000593 C  | 0.00783 C                       | 0.0000353 CU | 0.0125 HM                        | 0.0001 C     |
| PCB-129/138/160/163  | 0.297 HM                                                                                                                          | 0.175 C    | 0.0785 C                        | 0.00568 C   | 0.000218 CU                     | 0.000373 C   | 0.0747 C                        | 0.0000661 C  | 0.0786 HM                        | 0.000611 C   |
| PCB-130              | 0.0225 HM                                                                                                                         | 0.0123     | 0.00522                         | 0.00042 U   | 0.0000726 U                     | 0.000025     | 0.00373                         | 0.0000177 U  | 0.00498 HM                       | 0.000036     |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                     | Sample ID R3-020-V-Z3 R3-020-V-Z4 R3-020-V-Z5 R3-020-V-Z6 R3-020-V-Z7 R3-021-V-Z1 R3-022-V-Z1 R3-023-V-Z1 R3-024-V-Z1 R3-025-V-Z1 |           |             |             |             |              |             |              |             |              |             |  |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--|
|                             | Sample Date                                                                                                                       |           | Sample Date |             | Sample Date |              | Sample Date |              | Sample Date |              | Sample Date |  |
|                             | 5/26/2010                                                                                                                         |           | 5/26/2010   |             | 5/26/2010   |              | 5/26/2010   |              | 5/26/2010   |              | 5/26/2010   |  |
| Sample Depth Range (ft BGS) | 2-3                                                                                                                               |           | 3-4         |             | 4-6         |              | 6-8         |              | 8-10        |              | 0-1         |  |
| PCB-131                     | 0.00437 HM                                                                                                                        | 0.00208   | 0.00105     | 0.00042 U   | 0.0000726 U | 0.00000531   | 0.00111     | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-132                     | 0.127 HM                                                                                                                          | 0.0715    | 0.0305      | 0.00178     | 0.0000726 U | 0.000135     | 0.0279      | 0.0000226    | 0.0301 HM   | 0.000225     |             |  |
| PCB-133                     | 0.0055 HM                                                                                                                         | 0.00308   | 0.00135     | 0.00042 U   | 0.0000726 U | 0.0000081    | 0.00108     | 0.0000177 U  | 0.00184 HM  | 0.0000211 U  |             |  |
| PCB-134/143                 | 0.0251 HM                                                                                                                         | 0.0135    | 0.00584     | 0.00042 U   | 0.0000726 U | 0.000028     | 0.00588     | 0.0000177 U  | 0.00688 HM  | 0.0000453    |             |  |
| PCB-135/151/154             | 0.0976 HM                                                                                                                         | 0.0627 C  | 0.0262 C    | 0.00252 C   | 0.000145 CU | 0.000121 C   | 0.034 C     | 0.0000353 CU | 0.0277 HM   | 0.000192 C   |             |  |
| PCB-136                     | 0.0412 HM                                                                                                                         | 0.0256    | 0.0105      | 0.000844    | 0.0000726 U | 0.000047     | 0.0115      | 0.0000177 U  | 0.0116 HM   | 0.0000771    |             |  |
| PCB-137                     | 0.0148 HM                                                                                                                         | 0.00658   | 0.00339     | 0.00042 U   | 0.0000726 U | 0.0000193    | 0.00314     | 0.0000177 U  | 0.0041 HM   | 0.0000299    |             |  |
| PCB-138                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-139/140                 | 0.00676 HM                                                                                                                        | 0.00357 C | 0.00195 CU  | 0.000841 CU | 0.000145 CU | 0.00000803 C | 0.00136 C   | 0.0000353 CU | 0.00183 HM  | 0.0000422 CU |             |  |
| PCB-140                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-141                     | 0.0424 HM                                                                                                                         | 0.0244    | 0.0111      | 0.0012      | 0.0000726 U | 0.0000508    | 0.0154      | 0.0000177 U  | 0.0101 HM   | 0.0000877    |             |  |
| PCB-142                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-143                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-144                     | 0.0102 HM                                                                                                                         | 0.00497   | 0.00258     | 0.00042 U   | 0.0000726 U | 0.0000125    | 0.00473     | 0.0000177 U  | 0.00246 HM  | 0.0000224    |             |  |
| PCB-145                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-146                     | 0.0527 HM                                                                                                                         | 0.032     | 0.013       | 0.000848    | 0.0000726 U | 0.0000548    | 0.0113      | 0.0000177 U  | 0.0121 HM   | 0.0000941    |             |  |
| PCB-147/149                 | 0.237 HM                                                                                                                          | 0.149 C   | 0.0624 C    | 0.00543 C   | 0.000145 CU | 0.000292 C   | 0.0768 C    | 0.0000511 C  | 0.0652 HM   | 0.000476 C   |             |  |
| PCB-148                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-149                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-150                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-151                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-152                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-153/168                 | 0.233 HM                                                                                                                          | 0.149 C   | 0.0671 C    | 0.00589 C   | 0.000145 CU | 0.00026 C    | 0.0736 C    | 0.0000508 C  | 0.0548 HM   | 0.00042 C    |             |  |
| PCB-154                     | 0.00564 HM                                                                                                                        | 0.00331   | 0.00149     | 0.00042 U   | 0.0000726 U | 0.00000782   | 0.000814    | 0.0000177 U  | 0.00215 HM  | 0.0000211 U  |             |  |
| PCB-155                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-156/157                 | 0.0404 HM                                                                                                                         | 0.0197 C  | 0.00933 C   | 0.000841 CU | 0.000145 CU | 0.0000463 C  | 0.00562 C   | 0.0000353 CU | 0.0101 HM   | 0.0000837 C  |             |  |
| PCB-157                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-158                     | 0.0273 HM                                                                                                                         | 0.0149    | 0.00718     | 0.000539    | 0.0000726 U | 0.0000346    | 0.00682     | 0.0000177 U  | 0.00707 HM  | 0.0000566    |             |  |
| PCB-159                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00067     | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-160                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-161                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-162                     | 0.0013 UH                                                                                                                         | 0.0012    | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.000448    | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-163                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-164                     | 0.0215 HM                                                                                                                         | 0.0131    | 0.00565     | 0.00042 U   | 0.0000726 U | 0.0000222    | 0.00423     | 0.0000177 U  | 0.00436 HM  | 0.0000339    |             |  |
| PCB-165                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-166                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-167                     | 0.0115 HM                                                                                                                         | 0.00621   | 0.00301     | 0.00042 U   | 0.0000726 U | 0.0000138    | 0.00192     | 0.0000177 U  | 0.00311 HM  | 0.0000211 U  |             |  |
| PCB-168                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |
| PCB-169                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |             |  |
| PCB-170                     | 0.0453 HM                                                                                                                         | 0.0294    | 0.0129      | 0.00175     | 0.0000726 U | 0.0000495    | 0.00662     | 0.0000177 U  | 0.0101 HM   | 0.0000828    |             |  |
| PCB-171/173                 | 0.0145 HM                                                                                                                         | 0.00935 C | 0.00406 C   | 0.000841 CU | 0.000145 CU | 0.0000158 C  | 0.00414 C   | 0.0000353 CU | 0.00325 HM  | 0.0000422 CU |             |  |
| PCB-172                     | 0.00834 HM                                                                                                                        | 0.00569   | 0.00253     | 0.000474    | 0.0000726 U | 0.00000935   | 0.00181     | 0.0000177 U  | 0.00187 HM  | 0.0000211 U  |             |  |
| PCB-173                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |             |  |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                     | Sample ID R3-020-V-Z3 R3-020-V-Z4 R3-020-V-Z5 R3-020-V-Z6 R3-020-V-Z7 R3-021-V-Z1 R3-022-V-Z1 R3-023-V-Z1 R3-024-V-Z1 R3-025-V-Z1 |           |             |             |             |              |             |              |             |              |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-------------|-------------|--------------|-------------|--------------|-------------|--------------|
|                             | Sample Date                                                                                                                       |           | Sample Date |             | Sample Date |              | Sample Date |              | Sample Date |              |
|                             | 5/26/2010                                                                                                                         |           | 5/26/2010   |             | 5/26/2010   |              | 5/26/2010   |              | 5/26/2010   |              |
| Sample Depth Range (ft BGS) |                                                                                                                                   | 2-3       | 3-4         | 4-6         | 6-8         | 8-10         | 0-1         | 0-1          | 0-1         | 0-1          |
| PCB-174                     | 0.0491 HM                                                                                                                         | 0.0349    | 0.0154      | 0.00348     | 0.0000726 U | 0.0000567    | 0.0187      | 0.0000177 U  | 0.012 HM    | 0.0000929    |
| PCB-175                     | 0.00225 HM                                                                                                                        | 0.00151   | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.0000287 U  | 0.000929    | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-176                     | 0.00788 HM                                                                                                                        | 0.00504   | 0.00223     | 0.00042 U   | 0.0000726 U | 0.000008     | 0.0041      | 0.0000177 U  | 0.00167 HM  | 0.0000211 U  |
| PCB-177                     | 0.0307 HM                                                                                                                         | 0.0209    | 0.00819     | 0.00148     | 0.0000726 U | 0.0000352    | 0.00908     | 0.0000177 U  | 0.00732 HM  | 0.0000589    |
| PCB-178                     | 0.0117 HM                                                                                                                         | 0.00787   | 0.0038      | 0.000875    | 0.0000726 U | 0.0000172    | 0.0052      | 0.0000177 U  | 0.00397 HM  | 0.0000282    |
| PCB-179                     | 0.0241 HM                                                                                                                         | 0.0165    | 0.0074      | 0.00159     | 0.0000726 U | 0.0000297    | 0.0144      | 0.0000177 U  | 0.0066 HM   | 0.0000458    |
| PCB-180/193                 | 0.106 HM                                                                                                                          | 0.0733 C  | 0.035 C     | 0.00689 C   | 0.000145 CU | 0.000126 C   | 0.0252 C    | 0.0000353 CU | 0.0244 HM   | 0.000205 C   |
| PCB-181                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-182                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-183/185                 | 0.0329 HM                                                                                                                         | 0.0233 C  | 0.0107 C    | 0.00231 C   | 0.000145 CU | 0.0000399 C  | 0.0162 C    | 0.0000353 CU | 0.00805 HM  | 0.0000637 C  |
| PCB-184                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-185                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |
| PCB-186                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-187                     | 0.0637 HM                                                                                                                         | 0.0434    | 0.0214      | 0.00528     | 0.0000726 U | 0.0000919    | 0.0299      | 0.0000177 U  | 0.0185 HM   | 0.000139     |
| PCB-188                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-189                     | 0.00193 HM                                                                                                                        | 0.00125   | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-190                     | 0.0093 HM                                                                                                                         | 0.00587   | 0.00271     | 0.000426    | 0.0000726 U | 0.0000108    | 0.00156     | 0.0000177 U  | 0.00222 HM  | 0.0000211 U  |
| PCB-191                     | 0.00203 HM                                                                                                                        | 0.00121   | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-192                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-193                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |
| PCB-194                     | 0.0213 HM                                                                                                                         | 0.015     | 0.00961     | 0.00365     | 0.0000726 U | 0.0000324    | 0.00257     | 0.0000177 U  | 0.00663 HM  | 0.00005      |
| PCB-195                     | 0.00859 HM                                                                                                                        | 0.00601   | 0.00307     | 0.000952    | 0.0000726 U | 0.0000117    | 0.00141     | 0.0000177 U  | 0.0025 HM   | 0.0000234    |
| PCB-196                     | 0.0128 HM                                                                                                                         | 0.00951   | 0.00671     | 0.00318     | 0.0000726 U | 0.0000187    | 0.00287     | 0.0000177 U  | 0.00367 HM  | 0.0000211 U  |
| PCB-197/200                 | 0.00463 HM                                                                                                                        | 0.00329 C | 0.00217 C   | 0.000841 CU | 0.000145 CU | 0.00000666 C | 0.00177 C   | 0.0000353 CU | 0.00138 UH  | 0.0000422 CU |
| PCB-198/199                 | 0.0331 HM                                                                                                                         | 0.0269 C  | 0.0265 C    | 0.0176 C    | 0.000145 CU | 0.0000577 C  | 0.00665 C   | 0.0000353 CU | 0.0103 HM   | 0.0000897 C  |
| PCB-199                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |
| PCB-200                     | 0 HM                                                                                                                              | 0 CE      | 0 CE        | 0 CE        | 0 CE        | 0 CE         | 0 CE        | 0 CE         | 0 HM        | 0 CE         |
| PCB-201                     | 0.00401 HM                                                                                                                        | 0.0031    | 0.00242     | 0.00116     | 0.0000726 U | 0.00000639   | 0.00176     | 0.0000177 U  | 0.00122 HM  | 0.0000211 U  |
| PCB-202                     | 0.0068 HM                                                                                                                         | 0.00596   | 0.00678     | 0.00563     | 0.0000726 U | 0.0000137    | 0.00281     | 0.0000177 U  | 0.00253 HM  | 0.0000231    |
| PCB-203                     | 0.0174 HM                                                                                                                         | 0.0138    | 0.0123      | 0.00677     | 0.0000726 U | 0.0000298    | 0.00378     | 0.0000177 U  | 0.00542 HM  | 0.0000438    |
| PCB-204                     | 0.0013 UH                                                                                                                         | 0.00096 U | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-205                     | 0.0014 HM                                                                                                                         | 0.00103   | 0.000973 U  | 0.00042 U   | 0.0000726 U | 0.00000287 U | 0.00039 U   | 0.0000177 U  | 0.00069 UH  | 0.0000211 U  |
| PCB-206                     | 0.0448 HM                                                                                                                         | 0.0596    | 0.105       | 0.107       | 0.0000893   | 0.00011      | 0.00475     | 0.0000177 U  | 0.0125 HM   | 0.000165     |
| PCB-207                     | 0.00423 HM                                                                                                                        | 0.00547   | 0.00877     | 0.00509     | 0.0000726 U | 0.00000945   | 0.000484    | 0.0000177 U  | 0.00114 HM  | 0.0000211 U  |
| PCB-208                     | 0.0202 HM                                                                                                                         | 0.0279    | 0.0498      | 0.0485      | 0.0000726 U | 0.0000489    | 0.00209     | 0.0000177 U  | 0.00528 HM  | 0.000068     |
| PCB-209                     | 0.142 HM                                                                                                                          | 0.273     | 0.297       | 0.133       | 0.000107    | 0.000227     | 0.00883     | 0.0000178    | 0.0246 HM   | 0.00031      |
| TOTAL PCB CONGENERS         | 35.2 HM                                                                                                                           | 11.8      | 3.5         | 0.457       | 0.000315    | 0.027        | 4.44        | 0.00174      | 5.45 HM     | 0.0531       |



Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID  |           | Sample Date |            | Sample Depth Range (ft BGS) |            | R3-026-V-Z1 |             | R3-027-V-Z1 |            | R3-107-W   |           | R4-030-C   |         | R4-035-C   |        | R4-037-C   |       | R5-049-V-Z1 |     | R5-049-V-Z2 |     | R5-049-V-Z3 |     |
|--------------------------|------------|-----------|-------------|------------|-----------------------------|------------|-------------|-------------|-------------|------------|------------|-----------|------------|---------|------------|--------|------------|-------|-------------|-----|-------------|-----|-------------|-----|
|                          | 5/27/2010  | 5/27/2010 | 5/27/2010   | 5/27/2010  | 0-1                         | 3-4        | 0-1         | 0-1         | 0-0.5       | 0-1.1      | 11/16/2009 | 0-1.1     | 11/16/2009 | 0-0.8   | 11/17/2009 | 0-0.6  | 11/17/2009 | 0-0.6 | 5/21/2010   | 0-1 | 5/21/2010   | 1-2 | 5/21/2010   | 2-3 |
| PCB-44/47/65             | 0.315 C    | 0.517 C   | 0.163 C     | 0.163 C    | 0.163 C                     | 0.517 C    | 0.163 C     | 0.163 C     | 0.0479 J    | 0.0196     | 0.0633 J   | 0.174 J   | 0.344 C    | 0.534 C | 0.534 C    | 1.79 C |            |       |             |     |             |     |             |     |
| PCB-45/51                | 0.0693 C   | 0.0777 C  | 0.0342 C    | 0.0342 C   | 0.0342 C                    | 0.0777 C   | 0.0342 C    | 0.0342 C    | 0.0102      | 0.00459    | 0.0141     | 0.0448    | 0.0722 C   | 0.1 C   | 0.346 C    |        |            |       |             |     |             |     |             |     |
| PCB-46                   | 0.0209     | 0.0282    | 0.0104      | 0.0104     | 0.0104                      | 0.0281     | 0.00118     | 0.00404     | 0.0121      | 0.024      | 0.0335     | 0.118     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-47                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-48                   | 0.0287     | 0.0762    | 0.0133      | 0.0133     | 0.0133                      | 0.0344     | 0.00172     | 0.00593     | 0.0153      | 0.0305     | 0.0722     | 0.395     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-49/69                | 0.219 C    | 0.384 C   | 0.123 C     | 0.123 C    | 0.123 C                     | 0.357 J    | 0.0145      | 0.0495 J    | 0.132 J     | 0.274 C    | 0.369 C    | 1.12 C    |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-50/53                | 0.0664 C   | 0.0587 C  | 0.0352 C    | 0.0352 C   | 0.0352 C                    | 0.0103     | 0.00452     | 0.0127      | 0.0432      | 0.0736 C   | 0.0874 C   | 0.268 C   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-51                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-52                   | 0.334      | 0.625     | 0.203       | 0.203      | 0.203                       | 0.0506 J   | 0.0235      | 0.0753 J    | 0.218 J     | 0.439      | 0.614      | 1.96      |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-53                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-54                   | 0.00304    | 0.00116 U | 0.00133     | 0.00133    | 0.00133                     | 0.000388   | 0.000283    | 0.000425    | 0.00232     | 0.00251    | 0.00179    | 0.00523   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-55                   | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.000543   | 0.000282    | 0.0000498 U | 0.0000289 U | 0.000954 U | 0.000932 U | 0.00107 U |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-56                   | 0.0642     | 0.163     | 0.0322      | 0.0322     | 0.0322                      | 0.0106     | 0.00449     | 0.0141      | 0.0442      | 0.0644     | 0.138      | 0.705     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-57                   | 0.00453    | 0.00569   | 0.00166     | 0.00166    | 0.00166                     | 0.000563   | 0.000293    | 0.000929    | 0.00294     | 0.0039     | 0.00408    | 0.00827   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-58                   | 0.000437 U | 0.00279   | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.000269   | 0.000164 U  | 0.000283    | 0.00185     | 0.000954 U | 0.000932 U | 0.00555   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-59/62/75             | 0.0236 C   | 0.0386 C  | 0.0123 C    | 0.0123 C   | 0.0123 C                    | 0.00377    | 0.00151     | 0.00531     | 0.0146      | 0.0266 C   | 0.0437 C   | 0.155 C   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-60                   | 0.0157     | 0.00372   | 0.00936     | 0.00936    | 0.00936                     | 0.00339    | 0.00162     | 0.00356     | 0.0125      | 0.0156     | 0.0152     | 0.17      |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-61/70/74/76          | 0.231 C    | 0.592 C   | 0.119 C     | 0.119 C    | 0.119 C                     | 0.0387     | 0.0166      | 0.0512      | 0.151       | 0.243 C    | 0.49 C     | 2.46 C    |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-62                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-63                   | 0.0152     | 0.0183    | 0.00511     | 0.00511    | 0.00511                     | 0.00182    | 0.000816    | 0.00276     | 0.00819     | 0.011      | 0.0174     | 0.0736    |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-64                   | 0.0961     | 0.201     | 0.0537      | 0.0537     | 0.0537                      | 0.0151 J   | 0.00607     | 0.0233 J    | 0.0638 J    | 0.123      | 0.204      | 0.786     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-65                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-66                   | 0.154      | 0.393     | 0.0804      | 0.0804     | 0.0804                      | 0.0269 J   | 0.011       | 0.0328 J    | 0.0985 J    | 0.159      | 0.316      | 1.48      |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-67                   | 0.00488    | 0.012     | 0.00229     | 0.00229    | 0.00229                     | 0.000844   | 0.000339    | 0.00122     | 0.00381     | 0.00502    | 0.0106     | 0.0464    |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-68                   | 0.00597    | 0.0058    | 0.002       | 0.002      | 0.002                       | 0.000801   | 0.000354    | 0.000909    | 0.00288     | 0.00377    | 0.005      | 0.00837   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-69                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-70                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-71                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-72                   | 0.00742    | 0.00897   | 0.00293     | 0.00293    | 0.00293                     | 0.00105    | 0.000493    | 0.00126     | 0.00442     | 0.00575    | 0.00784    | 0.0143    |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-73                   | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.000558   | 0.000309    | 0.0000227 U | 0.0000127 U | 0.000954 U | 0.000932 U | 0.00107 U |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-74                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-75                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-76                   | 0 CE       | 0 CE      | 0 C         | 0 C        | 0 C                         | 0          | 0           | 0           | 0           | 0 CE       | 0 CE       | 0 CE      | 0 CE       | 0 CE    | 0 CE       | 0 CE   |            |       |             |     |             |     |             |     |
| PCB-77                   | 0.0175     | 0.0253    | 0.00811     | 0.00811    | 0.00811                     | 0.00258    | 0.000768    | 0.00268     | 0.00798     | 0.0144     | 0.027      | 0.121     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-78                   | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.000335 U | 0.00017 U   | 0.0000491 U | 0.0000282 U | 0.000954 U | 0.000932 U | 0.00107 U |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-79                   | 0.000437 U | 0.00259   | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.000316   | 0.000137 U  | 0.0000394 U | 0.0000227 U | 0.000954 U | 0.000932 U | 0.00107 U |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-80                   | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.000027 U | 0.000142 U  | 0.0000396 U | 0.0000234 U | 0.000954 U | 0.000932 U | 0.00107 U |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-81                   | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.0000798  | 0.000167 U  | 0.0000547 U | 0.0000272 U | 0.000954 U | 0.000932 U | 0.00107 U |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-82                   | 0.0193     | 0.0156    | 0.0122      | 0.0122     | 0.0122                      | 0.00492    | 0.00123     | 0.00438     | 0.0148      | 0.0206     | 0.0276     | 0.117     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-83/99                | 0.00971    | 0.0214    | 0.000627 U  | 0.000627 U | 0.000627 U                  | 0.00253    | 0.000654    | 0.0024      | 0.00907     | 0.0103     | 0.0157     | 0.0456    |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-84                   | 0.0608     | 0.0999    | 0.0331      | 0.0331     | 0.0331                      | 0.012      | 0.0036      | 0.0139      | 0.0363      | 0.066      | 0.0954     | 0.279     |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-85/116/117           | 0.0308 C   | 0.0266 C  | 0.0182 C    | 0.0182 C   | 0.0182 C                    | 0.00765    | 0.00218     | 0.00693     | 0.0226      | 0.0295 C   | 0.0361 C   | 0.145 C   |            |         |            |        |            |       |             |     |             |     |             |     |
| PCB-86/87/97/108/119/125 | 0.0856 C   | 0.124 C   | 0.0541 C    | 0.0541 C   | 0.0541 C                    | 0.0219     | 0.00622     | 0.0201      | 0.0616      | 0.0923 C   | 0.121 C    | 0.49 C    |            |         |            |        |            |       |             |     |             |     |             |     |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte              | Sample ID  |           | Sample Date |             | Sample Depth Range (ft BGS) |             | R3-026-V-Z1 |             | R3-027-V-Z1 |             | R3-107-W   |             | R4-030-C    |             | R4-035-C    |             | R4-037-C    |             | R5-049-V-Z1 |            | R5-049-V-Z2 |            | R5-049-V-Z3 |           |
|----------------------|------------|-----------|-------------|-------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|------------|-------------|-----------|
|                      | 5/27/2010  | 0-1       | 5/27/2010   | 3-4         | 0-1                         | 0-1         | 5/27/2010   | 0-1         | 5/27/2010   | 0-1         | 11/16/2009 | 0-0.5       | 11/16/2009  | 0-1.1       | 11/17/2009  | 0-0.8       | 11/17/2009  | 0-0.6       | 5/21/2010   | 0-1        | 5/21/2010   | 1-2        | 5/21/2010   | 2-3       |
| PCB-87               |            | 0 CE      | 0 CE        |             | 0 C                         | 0           |             | 0           |             | 0           |            | 0           |             | 0           |             | 0           |             | 0 CE        |             | 0 CE       |             | 0 CE       |             | 0 CE      |
| PCB-88/91            | 0.0406 C   | 0.0509 C  | 0.0206 C    | 0.00814     | 0.00814                     | 0.00814     | 0.00814     | 0.00814     | 0.00814     | 0.00814     | 0.00814    | 0.00814     | 0.00253     | 0.00253     | 0.00895     | 0.00895     | 0.0254      | 0.0254      | 0.0411 C    | 0.0411 C   | 0.057 C     | 0.057 C    | 0.15 C      | 0.15 C    |
| PCB-89               | 0.00422    | 0.00582   | 0.00242     | 0.000936    | 0.000936                    | 0.000936    | 0.000936    | 0.000936    | 0.000936    | 0.000936    | 0.000936   | 0.000936    | 0.000326    | 0.000326    | 0.0011      | 0.0011      | 0.00302     | 0.00302     | 0.0044      | 0.0044     | 0.00787     | 0.00787    | 0.0279      | 0.0279    |
| PCB-90/101/113       | 0.109 C    | 0.234 C   | 0.0693 C    | 0.027       | 0.0693 C                    | 0.027       | 0.0693 C    | 0.027       | 0.0693 C    | 0.027       | 0.0693 C   | 0.027       | 0.00788     | 0.00788     | 0.0256      | 0.0256      | 0.0758      | 0.0758      | 0.124 C     | 0.124 C    | 0.164 C     | 0.164 C    | 0.585 C     | 0.585 C   |
| PCB-91               | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0           | 0           | 0           | 0           | 0          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-92               | 0          | 0         | 0           | 0           | 0                           | 0           | 0           | 0           | 0           | 0           | 0          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0           | 0          | 0           | 0         |
| PCB-93/95/98/100/102 | 0.0345 C   | 0.0609 CU | 0.0192 C    | 0.00756     | 0.00756                     | 0.00756     | 0.00756     | 0.00756     | 0.00756     | 0.00756     | 0.00756    | 0.00756     | 0.00206     | 0.00206     | 0.00773     | 0.00773     | 0.0227      | 0.0227      | 0.0359 C    | 0.0359 C   | 0.0434 CU   | 0.0434 CU  | 0.124 CU    | 0.124 CU  |
| PCB-94               | 0.00508    | 0.00233   | 0.00251     | 0.00106     | 0.00106                     | 0.00106     | 0.00106     | 0.00106     | 0.00106     | 0.00106     | 0.00106    | 0.00106     | 0.000377 U  | 0.000377 U  | 0.00102     | 0.00102     | 0.00328     | 0.00328     | 0.00404     | 0.00404    | 0.00186     | 0.00186    | 0.00214     | 0.00214   |
| PCB-95               | 0.00405    | 0.00235   | 0.00169     | 0.000625    | 0.000625                    | 0.000625    | 0.000625    | 0.000625    | 0.000625    | 0.000625    | 0.000625   | 0.000625    | 0.000246    | 0.000246    | 0.000627    | 0.000627    | 0.00222     | 0.00222     | 0.003       | 0.003      | 0.00311     | 0.00311    | 0.00875     | 0.00875   |
| PCB-96               | 0.119      | 0.233     | 0.071       | 0           | 0.071                       | 0           | 0.071       | 0           | 0.071       | 0           | 0.071      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.142       | 0.142      | 0.198       | 0.198      | 0.546       | 0.546     |
| PCB-97               | 0.00336 CE | 0.0034 CE | 0.00167 C   | 0.000688    | 0.00167 C                   | 0.000688    | 0.00167 C   | 0.000688    | 0.00167 C   | 0.000688    | 0.00167 C  | 0.000688    | 0.000212    | 0.000212    | 0.000819    | 0.000819    | 0.00235     | 0.00235     | 0.00337 CE  | 0.00337 CE | 0.00477 CE  | 0.00477 CE | 0.0142 CE   | 0.0142 CE |
| PCB-98               | 0 C        | 0 C       | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 C         | 0 C        | 0 C         | 0 C        | 0 C         | 0 C       |
| PCB-99               | 0.0142     | 0.0154    | 0.00702     | 0           | 0.00702                     | 0           | 0.00702     | 0           | 0.00702     | 0           | 0.00702    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.0136      | 0.0136     | 0.0193      | 0.0193     | 0.0524      | 0.0524    |
| PCB-100              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-101              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-102              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-103              | 0.00255    | 0.00481   | 0.00143     | 0.000549    | 0.00143                     | 0.000549    | 0.00143     | 0.000549    | 0.00143     | 0.000549    | 0.00143    | 0.000549    | 0.000217 U  | 0.000217 U  | 0.000621    | 0.000621    | 0.00177     | 0.00177     | 0.00273     | 0.00273    | 0.00355     | 0.00355    | 0.00734     | 0.00734   |
| PCB-104              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000406   | 0.000627 U                  | 0.0000406   | 0.000627 U  | 0.0000406   | 0.000627 U  | 0.0000406   | 0.000627 U | 0.0000406   | 0.0000801 U | 0.0000801 U | 0.000041    | 0.000041    | 0.000135    | 0.000135    | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-105              | 0.042      | 0.0307    | 0.0294      | 0.0102      | 0.0294                      | 0.0102      | 0.0294      | 0.0102      | 0.0294      | 0.0102      | 0.0294     | 0.0102      | 0.00314     | 0.00314     | 0.00784     | 0.00784     | 0.0278      | 0.0278      | 0.0444      | 0.0444     | 0.0458      | 0.0458     | 0.26        | 0.26      |
| PCB-106              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000398 U | 0.000627 U                  | 0.0000398 U | 0.000627 U  | 0.0000398 U | 0.000627 U  | 0.0000398 U | 0.000627 U | 0.0000398 U | 0.000171 U  | 0.000171 U  | 0.0000521 U | 0.0000521 U | 0.0000412 U | 0.0000412 U | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-107/124          | 0.0087     | 0.0176    | 0.00521     | 0.000914    | 0.00521                     | 0.000914    | 0.00521     | 0.000914    | 0.00521     | 0.000914    | 0.00521    | 0.000914    | 0.000286    | 0.000286    | 0.000749    | 0.000749    | 0.00244     | 0.00244     | 0.0083      | 0.0083     | 0.0113      | 0.0113     | 0.0457      | 0.0457    |
| PCB-108              | 0.00289 C  | 0.00245 C | 0.002 C     | 0           | 0.002 C                     | 0           | 0.002 C     | 0           | 0.002 C     | 0           | 0.002 C    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.0033 C    | 0.0033 C   | 0.00353 C   | 0.00353 C  | 0.0165 C    | 0.0165 C  |
| PCB-109              | 0 CE       | 0 CE      | 0 C         | 0.00223     | 0 C                         | 0.00223     | 0 C         | 0.00223     | 0 C         | 0.00223     | 0 C        | 0.00223     | 0.000648    | 0.000648    | 0.0021      | 0.0021      | 0.00634     | 0.00634     | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-110/115          | 0.177 C    | 0.308 C   | 0.105 C     | 0.0403 J    | 0.105 C                     | 0.0403 J    | 0.105 C     | 0.0403 J    | 0.105 C     | 0.0403 J    | 0.105 C    | 0.0403 J    | 0.0108      | 0.0108      | 0.0437 J    | 0.0437 J    | 0.115 J     | 0.115 J     | 0.192 C     | 0.192 C    | 0.269 C     | 0.269 C    | 0.729 C     | 0.729 C   |
| PCB-111              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000428 U | 0.000627 U                  | 0.0000428 U | 0.000627 U  | 0.0000428 U | 0.000627 U  | 0.0000428 U | 0.000627 U | 0.0000428 U | 0.000164 U  | 0.000164 U  | 0.0000369 U | 0.0000369 U | 0.0000911   | 0.0000911   | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-112              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000425 U | 0.000627 U                  | 0.0000425 U | 0.000627 U  | 0.0000425 U | 0.000627 U  | 0.0000425 U | 0.000627 U | 0.0000425 U | 0.000157 U  | 0.000157 U  | 0.0000366 U | 0.0000366 U | 0.0000341 U | 0.0000341 U | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-113              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-114              | 0.00264    | 0.00192   | 0.00194     | 0.000741    | 0.00194                     | 0.000741    | 0.00194     | 0.000741    | 0.00194     | 0.000741    | 0.00194    | 0.000741    | 0.000188    | 0.000188    | 0.000582    | 0.000582    | 0.0021      | 0.0021      | 0.00302     | 0.00302    | 0.00323     | 0.00323    | 0.0197      | 0.0197    |
| PCB-115              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-117              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-118              | 0.103      | 0.204     | 0.067       | 0.0232 J    | 0.067                       | 0.0232 J    | 0.067       | 0.0232 J    | 0.067       | 0.0232 J    | 0.067      | 0.0232 J    | 0.00699     | 0.00699     | 0.0206 J    | 0.0206 J    | 0.0637 J    | 0.0637 J    | 0.112       | 0.112      | 0.145       | 0.145      | 0.586       | 0.586     |
| PCB-119              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-120              | 0.000437 U | 0.00175   | 0.000627 U  | 0.000112    | 0.000627 U                  | 0.000112    | 0.000627 U  | 0.000112    | 0.000627 U  | 0.000112    | 0.000627 U | 0.000112    | 0.000155 U  | 0.000155 U  | 0.0000975   | 0.0000975   | 0.000265    | 0.000265    | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00172     | 0.00172   |
| PCB-121              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000421 U | 0.000627 U                  | 0.0000421 U | 0.000627 U  | 0.0000421 U | 0.000627 U  | 0.0000421 U | 0.000627 U | 0.0000421 U | 0.000167 U  | 0.000167 U  | 0.0000363 U | 0.0000363 U | 0.0000337 U | 0.0000337 U | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-122              | 0.00128    | 0.00116 U | 0.00083     | 0.000443    | 0.00083                     | 0.000443    | 0.00083     | 0.000443    | 0.00083     | 0.000443    | 0.00083    | 0.000443    | 0.000186 U  | 0.000186 U  | 0.000314    | 0.000314    | 0.00124     | 0.00124     | 0.000954 U  | 0.000954 U | 0.00141     | 0.00141    | 0.007       | 0.007     |
| PCB-123              | 0.00217    | 0.00222   | 0.00172     | 0.000499    | 0.00172                     | 0.000499    | 0.00172     | 0.000499    | 0.00172     | 0.000499    | 0.00172    | 0.000499    | 0.000168    | 0.000168    | 0.000247    | 0.000247    | 0.00115     | 0.00115     | 0.0024      | 0.0024     | 0.00272     | 0.00272    | 0.0139      | 0.0139    |
| PCB-124              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-125              | 0 CE       | 0 CE      | 0 C         | 0           | 0 C                         | 0           | 0 C         | 0           | 0 C         | 0           | 0 C        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 CE        | 0 CE       | 0 CE        | 0 CE       | 0 CE        | 0 CE      |
| PCB-126              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000603   | 0.000627 U                  | 0.0000603   | 0.000627 U  | 0.0000603   | 0.000627 U  | 0.0000603   | 0.000627 U | 0.0000603   | 0.00017 U   | 0.00017 U   | 0.0000753 U | 0.0000753 U | 0.0000492 U | 0.0000492 U | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-127              | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000041 U  | 0.000627 U                  | 0.000041 U  | 0.000627 U  | 0.000041 U  | 0.000627 U  | 0.000041 U  | 0.000627 U | 0.000041 U  | 0.000186 U  | 0.000186 U  | 0.0000537 U | 0.0000537 U | 0.0000435 U | 0.0000435 U | 0.000954 U  | 0.000954 U | 0.000932 U  | 0.000932 U | 0.00107 U   | 0.00107 U |
| PCB-128/166          | 0.00918 C  | 0.0166 C  | 0.00614 C   | 0.00338     | 0.00614 C                   | 0.00338     | 0.00614 C   | 0.00338     | 0.00614 C   | 0.00338     | 0.00614 C  | 0.00338     | 0.000814    | 0.000814    | 0.00277     | 0.00277     | 0.00765 J+  | 0.00765 J+  | 0.0109 C    | 0.0109 C   | 0.0123 C    | 0.0123 C   | 0.0444 C    | 0.0444 C  |
| PCB-129/138/160/163  | 0.0597 C   | 0.112 C   | 0.0395 C    | 0.0183      | 0.0395 C                    | 0.0183      | 0.0395 C    | 0.0183      | 0.0395 C    | 0.0183      | 0.0395 C   | 0.0183      | 0.00399     | 0.00399     | 0.0158      | 0.0158      | 0.0448 J+   | 0.0448 J+   | 0.065 C     | 0.065 C    | 0.0776 C    | 0.0776 C   | 0.255 C     | 0.255 C   |
| PCB-130              | 0.00379    | 0.00881   | 0.00258     | 0.00129     | 0.00258                     | 0.00129     | 0.00258     | 0.00129     | 0.00258     | 0.00129     | 0.00258    | 0.00129     | 0.000317    | 0.000317    | 0.00118     | 0.00118     | 0.00322 J+  | 0.00322 J+  | 0.00433     | 0.00433    | 0.00581     | 0.00581    | 0.0185      | 0.0185    |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte         | Sample ID  |           | Sample Date |             | Sample Depth Range (ft BGS) |             | R3-026-V-Z1  |            | R3-027-V-Z1 |           | R3-107-W |       | R4-030-C |       | R4-035-C |     | R4-037-C |     | R5-049-V-Z1 |     | R5-049-V-Z2 |     | R5-049-V-Z3 |     |
|-----------------|------------|-----------|-------------|-------------|-----------------------------|-------------|--------------|------------|-------------|-----------|----------|-------|----------|-------|----------|-----|----------|-----|-------------|-----|-------------|-----|-------------|-----|
|                 | 5/27/2010  | 5/27/2010 | 5/27/2010   | 5/27/2010   | 0-1                         | 3-4         | 0-1          | 0-1        | 0-1         | 0-1       | 0-0.5    | 0-1.1 | 0-1.1    | 0-0.8 | 0-0.6    | 0-1 | 0-1      | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 |
| PCB-131         | 0.000828   | 0.00116 U | 0.000627 U  | 0.000238    | 0.000296 U                  | 0.000211    | 0.000606 J+  | 0.00105    | 0.000932 U  | 0.00438   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-132         | 0.022      | 0.0527    | 0.0139      | 0.007       | 0.00173                     | 0.00724     | 0.00039 UJ   | 0.0257     | 0.0363      | 0.1       |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-133         | 0.00121    | 0.00303   | 0.000838    | 0.000394    | 0.000291 U                  | 0.000359    | 0.00127 J+   | 0.00154    | 0.000932 U  | 0.00386   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-134/143     | 0.00534    | 0.0116    | 0.00314     | 0.000994    | 0.000355                    | 0.00118     | 0.00358 J+   | 0.0062     | 0.00761     | 0.0222    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-135/151/154 | 0.0197 C   | 0.046 C   | 0.0124 C    | 0.00659     | 0.00129                     | 0.00635     | 0.0186 J+    | 0.0229 C   | 0.03 C      | 0.0758 C  |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-136         | 0.00824    | 0.0189    | 0.00506     | 0.0025      | 0.000479                    | 0.00256     | 0.00688 J+   | 0.00948    | 0.0128      | 0.0322    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-137         | 0.00314    | 0.00431   | 0.00228     | 0.00144     | 0.000285 U                  | 0.00133     | 0.00331 J+   | 0.00312    | 0.00346     | 0.0148    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-138         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-139/140     | 0.00123 C  | 0.00292 C | 0.00125 CU  | 0.00043     | 0.000279 U                  | 0.000402    | 0.00121 J+   | 0.00191 CU | 0.00206 C   | 0.00561 C |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-140         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-141         | 0.00764    | 0.0132    | 0.00508     | 0.00231     | 0.000627                    | 0.00225     | 0.00571 J+   | 0.00908    | 0.0114      | 0.0424    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-142         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000826 U | 0.000312 U                  | 0.000109 U  | 0.0203 J+    | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-143         | 0.000437 U | 0.00116 U | 0.000627 U  | 0           | 0                           | 0           | 0            | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-144         | 0.00185    | 0.00307   | 0.00134     | 0.000697    | 0.000185 U                  | 0.000661    | 0.0018 J+    | 0.00229    | 0.00288     | 0.00932   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-145         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000176   | 0.000151 U                  | 0.000018 U  | 0.0000476 J+ | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-146         | 0.0084     | 0.0257    | 0.00559     | 0.00242     | 0.000621                    | 0.00219     | 0.00651 J+   | 0.00977    | 0.0131      | 0.037     |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-147/149     | 0.0468 C   | 0.113 C   | 0.0291 C    | 0.0138      | 0.00334                     | 0.014       | 0.0445 J+    | 0.0544 C   | 0.0737 C    | 0.186 C   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-148         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.000101    | 0.000198 U                  | 0.0000894   | 0.000341 J+  | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-149         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-150         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000556   | 0.000148 U                  | 0.0000466   | 0.000122 J+  | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-151         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-152         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000538   | 0.000145 U                  | 0.000045    | 0.000166 J+  | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-153/168     | 0.0403 C   | 0.101 C   | 0.0262 C    | 0.0128      | 0.00294                     | 0.0112      | 0.0327 J+    | 0.0453 C   | 0.0582 C    | 0.183 C   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-154         | 0.00122    | 0.00349   | 0.000831    | 0           | 0                           | 0           | 0            | 0.00165    | 0.00225     | 0.00313   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-155         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000051 J | 0.000115 U                  | 0.0000088 U | 0.0000409    | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-156/157     | 0.00752 C  | 0.0127 C  | 0.00525 C   | 0.00203     | 0.000525                    | 0.00159     | 0.00416      | 0.00836 C  | 0.01 C      | 0.0405 C  |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-157         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-158         | 0.00539    | 0.00852   | 0.00363     | 0.00175     | 0.000422                    | 0.00156     | 0.00426 J+   | 0.00589    | 0.00717     | 0.0262    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-159         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000256 U | 0.000153 U                  | 0.000039 U  | 0.0000257 UJ | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-160         | 0.000437 U | 0.00116 U | 0.000627 U  | 0           | 0                           | 0           | 0            | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-161         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000575 U | 0.000215 U                  | 0.000076 U  | 0.000027 UJ  | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-162         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000252 U | 0.000154 U                  | 0.0000383 U | 0.0000243 UJ | 0.000954 U | 0.000932 U  | 0.00188   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-163         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-164         | 0.00314    | 0.00874   | 0.00202     | 0.000804    | 0.000219 U                  | 0.000718    | 0.00195 J+   | 0.00407    | 0.0052      | 0.0164    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-165         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000642 U | 0.000246 U                  | 0.0000848 U | 0.000114 J+  | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-166         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-167         | 0.00231    | 0.00396   | 0.00157     | 0.000664    | 0.000153 U                  | 0.000477    | 0.00132      | 0.00274    | 0.00298     | 0.0113    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-168         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-169         | 0.000437 U | 0.00116 U | 0.000627 U  | 0.0000484 U | 0.000133 U                  | 0.0000755 U | 0.0000652 UJ | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-170         | 0.00805    | 0.017     | 0.00509     | 0.00232     | 0.000636                    | 0.0018      | 0.00423      | 0.00895    | 0.0123      | 0.04      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-171/173     | 0.0025 C   | 0.00592 C | 0.00148 C   | 0.000719    | 0.000269 U                  | 0.000626    | 0.00153      | 0.00296 C  | 0.00392 C   | 0.0133 C  |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-172         | 0.00153    | 0.00359   | 0.000988    | 0.000378    | 0.000278 U                  | 0.00033     | 0.000744     | 0.00177    | 0.00246     | 0.00789   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-173         | 0 CE       | 0 CE      | 0 C         | 0           | 0                           | 0           | 0            | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte             | Sample ID  |            | Sample Date |             | Sample Depth Range (ft BGS) |             | R3-026-V-Z1 |            | R3-027-V-Z1 |           | R3-107-W |       | R4-030-C |       | R4-035-C |     | R4-037-C |     | R5-049-V-Z1 |     | R5-049-V-Z2 |     | R5-049-V-Z3 |     |
|---------------------|------------|------------|-------------|-------------|-----------------------------|-------------|-------------|------------|-------------|-----------|----------|-------|----------|-------|----------|-----|----------|-----|-------------|-----|-------------|-----|-------------|-----|
|                     | 5/27/2010  | 0-1        | 5/27/2010   | 3-4         | 0-1                         | 0-1         | 0-1         | 0-1        | 0-1         | 0-1       | 0-0.5    | 0-1.1 | 0-1.1    | 0-0.8 | 0-0.6    | 0-1 | 0-1      | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 | 0-1         | 0-1 |
| PCB-174             | 0.00911    | 0.0213     | 0.00563     | 0.00269     | 0.000695                    | 0.00231     | 0.00531     | 0.0105     | 0.015       | 0.0498    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-175             | 0.00437 U  | 0.00116 U  | 0.000627 U  | 0.000119    | 0.0000932                   | 0.000267    | 0.000954 U  | 0.000932 U | 0.00202     |           |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-176             | 0.00127    | 0.0032     | 0.000759    | 0.000378    | 0.00155 U                   | 0.000328    | 0.000822    | 0.00157    | 0.00218     | 0.00676   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-177             | 0.00545    | 0.0133     | 0.00353     | 0.0016      | 0.000432                    | 0.00139     | 0.00342     | 0.00644    | 0.00888     | 0.0261    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-178             | 0.0027     | 0.00609    | 0.00178     | 0.000831    | 0.000212 U                  | 0.000658    | 0.00202     | 0.0032     | 0.00418     | 0.011     |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-179             | 0.00462    | 0.0111     | 0.00283     | 0.00138     | 0.00032                     | 0.00127     | 0.00319     | 0.00565    | 0.00775     | 0.0235    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-180/193         | 0.0191 C   | 0.041 C    | 0.012 C     | 0.00502     | 0.00132                     | 0.00396     | 0.00946     | 0.0219 C   | 0.0303 C    | 0.102 C   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-181             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000303 U | 0.000257 U                  | 0.0000443 U | 0.000217 U  | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-182             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000225 U | 0.0002 U                    | 0.000054 U  | 0.0000372   | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-183/185         | 0.0061 C   | 0.0135 C   | 0.00384 C   | 0.00159     | 0.00049                     | 0.00141     | 0.00431     | 0.00703 C  | 0.01 C      | 0.034 C   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-184             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000163 U | 0.000149 U                  | 0.000039 U  | 0.0000153 U | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-185             | 0 CE       | 0 CE       | 0 C         | 0           | 0                           | 0           | 0           | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-186             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000178 U | 0.00016 U                   | 0.0000426 U | 0.0000168 U | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-187             | 0.0132     | 0.0294     | 0.00836     | 0.00432     | 0.001                       | 0.00344     | 0.00927     | 0.0158     | 0.0211      | 0.0591    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-188             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000175 U | 0.000172 U                  | 0.0000414 U | 0.0000437   | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-189             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.000097    | 0.0000862 U                 | 0.0000755   | 0.000158    | 0.000954 U | 0.000932 U  | 0.00208   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-190             | 0.00166    | 0.0032     | 0.00106     | 0.00049     | 0.000221 U                  | 0.000375    | 0.000847    | 0.00189    | 0.00264     | 0.00848   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-191             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000858   | 0.000204 U                  | 0.0000691   | 0.00017     | 0.000954 U | 0.000932 U  | 0.00154   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-192             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000258 U | 0.0000237 U                 | 0.0000378 U | 0.0000188 U | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-193             | 0 CE       | 0 CE       | 0 C         | 0           | 0                           | 0           | 0           | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-194             | 0.00501    | 0.00996    | 0.00348     | 0.00148     | 0.000448                    | 0.00111     | 0.00306     | 0.00616    | 0.00798     | 0.0255    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-195             | 0.00181    | 0.00366    | 0.0013      | 0.000523    | 0.000209 U                  | 0.000395    | 0.00112     | 0.0021     | 0.00288     | 0.00912   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-196             | 0.00287    | 0.00632    | 0.00187     | 0.000855    | 0.000205                    | 0.00074     | 0.00174     | 0.00356    | 0.0046      | 0.0151    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-197/200         | 0.00095 C  | 0.00233 CU | 0.00125 CU  | 0.000293    | 0.000135 U                  | 0.000248    | 0.000598    | 0.00191 CU | 0.00186 CU  | 0.00557 C |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-198/199         | 0.00742 C  | 0.0192 C   | 0.00489 C   | 0.00235     | 0.000616                    | 0.00228     | 0.00453     | 0.00853 C  | 0.012 C     | 0.0406 C  |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-199             | 0 CE       | 0 CE       | 0 C         | 0           | 0                           | 0           | 0           | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-200             | 0 CE       | 0 CE       | 0 C         | 0           | 0                           | 0           | 0           | 0 CE       | 0 CE        | 0 CE      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-201             | 0.000899   | 0.00217    | 0.000627 U  | 0.000258    | 0.000133 U                  | 0.000249    | 0.000554    | 0.00103    | 0.00145     | 0.00475   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-202             | 0.00176    | 0.00497    | 0.00118     | 0.000477    | 0.000158 U                  | 0.000568    | 0.00109     | 0.00198    | 0.0028      | 0.00876   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-203             | 0.0041     | 0.00921    | 0.00271     | 0.0012      | 0.000313                    | 0.00114     | 0.00229     | 0.00481    | 0.00636     | 0.0222    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-204             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000165 U | 0.000135 U                  | 0.0000356 U | 0.00006 U   | 0.000954 U | 0.000932 U  | 0.00107 U |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-205             | 0.000437 U | 0.00116 U  | 0.000627 U  | 0.0000759   | 0.000122 U                  | 0.0000615   | 0.000141    | 0.000954 U | 0.000932 U  | 0.00175   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-206             | 0.00954    | 0.0504     | 0.0056      | 0.00173     | 0.000825                    | 0.00348     | 0.00346     | 0.00967    | 0.0144      | 0.0442    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-207             | 0.000871   | 0.0041     | 0.000627 U  | 0.00019     | 0.00019 U                   | 0.000377    | 0.00037     | 0.000954 U | 0.000932 U  | 0.00427   |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-208             | 0.00402    | 0.0235     | 0.00234     | 0.000883    | 0.000329                    | 0.00226     | 0.00163     | 0.00389    | 0.00595     | 0.0182    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| PCB-209             | 0.0193     | 0.172      | 0.0105      | 0.00439     | 0.00163                     | 0.00989     | 0.00728     | 0.0184     | 0.0383      | 0.0871    |          |       |          |       |          |     |          |     |             |     |             |     |             |     |
| TOTAL PCB CONGENERS | 4.45       | 8.53       | 2.35        | 0.72        | 0.29                        | 0.97        | 2.8         | 4.94       | 7.65        | 29.1      |          |       |          |       |          |     |          |     |             |     |             |     |             |     |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Sample ID                          |             | R5-115-W     | R6-053-C    | R6-056-C    | R6-056-CR   | R6-058-C    | R6-062-C    | R6-066-C   | R6-067-C   | R7-068-C   |
|------------------------------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|
| Sample Date                        |             | 11/18/2009   | 11/19/2009  | 11/17/2009  | 11/17/2009  | 11/18/2009  | 11/19/2009  | 11/25/2009 | 11/25/2009 | 11/25/2009 |
| Sample Depth Range (ft BGS)        |             | 0-0.5        | 0-1.2       | 0-1.2       | 0-1.2       | 0-2.2       | 0-3.7       | 0-1.9      | 0-2.1      | 0-2.1      |
| Analyte                            |             |              |             |             |             |             |             |            |            |            |
| PCB Congeners by HRGC/HRMS (mg/kg) |             |              |             |             |             |             |             |            |            |            |
| PCB-1                              | 0.00152     | 0.000315 J   | 0.00198 J   | 0.00662 J   | 0.00794 J   | 0.0148 J    | 0.00566 J   | 0.0456 J   | 0.09 J     | 0.43 J     |
| PCB-2                              | 0.000345 U  | 0.0000647    | 0.000271    | 0.000552    | 0.000637    | 0.00226     | 0.000498    | 0.0029 J   | 0.00838 J  | 0.0355 J   |
| PCB-3                              | 0.000345 U  | 0.0000327 J  | 0.00127 J   | 0.00438 J   | 0.00471 J   | 0.00874 J   | 0.00318 J   | 0.0214 J   | 0.0407 J   | 0.161 J    |
| PCB-4                              | 0.00767     | 0.000546 J   | 0.0138 J    | 0.0302 J    | 0.0376 J    | 0.0394 J    | 0.039 J     | 0.241 J    | 0.554 J    | 3.74 J     |
| PCB-5                              | 0.000345 U  | 0.00000096 U | 0.0000015 U | 0.00105     | 0.00182     | 0.00324     | 0.000732    | 0.00326 J  | 0.00657 J  | 0.0774 J   |
| PCB-6                              | 0.00146     | 0.000507 J   | 0.00627 J   | 0.0244 J    | 0.0421 J    | 0.0403 J    | 0.0223 J    | 0.0758 J   | 0.179 J    | 2.36 J     |
| PCB-7                              | 0.000347    | 0.000068     | 0.000674    | 0.0015      | 0.00215     | 0.00354     | 0.00204     | 0.00837 J  | 0.0135 J   | 0.0718 J   |
| PCB-8                              | 0.00291     | 0.00074 J    | 0.00606 J   | 0.0238 J    | 0.0332 J    | 0.0608 J    | 0.015 J     | 0.0676 J   | 0.138 J    | 1.05 J     |
| PCB-9                              | 0.000513    | 0.0000717 J  | 0.00083 J   | 0.00215 J   | 0.00317 J   | 0.0049 J    | 0.00299 J   | 0.0132 J   | 0.0325 J   | 0.251 J    |
| PCB-10                             | 0.000379    | 0.0000099    | 0.000235    | 0.000643    | 0.000865    | 0.000767    | 0.000868    | 0.0044     | 0.00746    | 0.0304     |
| PCB-11                             | 0.0172 U    | 0.00042 J    | 0.000855 J  | 0.0017 J    | 0.00284 J   | 0.00297 J   | 0.00162 J   | 0.00964 J  | 0.018 J    | 0.215 J    |
| PCB-12/13                          | 0.000689 CU | 0.000342     | 0.00417     | 0.00765     | 0.0108      | 0.0116      | 0.0088      | 0.0508 J   | 0.113 J    | 1.17 J     |
| PCB-13                             | 0 CE        | 0            | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-14                             | 0.000345 U  | 0.0000008 U  | 0.0000013 U | 0.0000044 U | 0.0000041 U | 0.0000157 U | 0.0000017 U | 0.000067 J | 0.000141   | 0.00027    |
| PCB-15                             | 0.00176     | 0.00149 J    | 0.0109 J    | 0.0227 J    | 0.0287 J    | 0.0341 J    | 0.0219 J    | 0.113 J    | 0.158 J    | 1.9 J      |
| PCB-16                             | 0.003       | 0.000306 J   | 0.00314 J   | 0.0111 J    | 0.0173 J    | 0.0335 J    | 0.00908 J   | 0.0238 J   | 0.0364 J   | 0.813 J    |
| PCB-17                             | 0.00552     | 0.000834 J   | 0.0237 J    | 0.0439 J    | 0.0537 J    | 0.0733 J    | 0.0559 J    | 0.224 J    | 0.447 J    | 3.57 J     |
| PCB-18/30                          | 0.00897 C   | 0.00114 J    | 0.0195 J    | 0.0565 J    | 0.0831 J    | 0.13 J      | 0.0514 J    | 0.173 J    | 0.303 J    | 3.89 J     |
| PCB-19                             | 0.00159     | 0.000201 J   | 0.00836 J   | 0.0123 J    | 0.0151 J    | 0.015 J     | 0.0167 J    | 0.088 J    | 0.242 J    | 1.11 J     |
| PCB-20/28                          | 0.0139 C    | 0.0028 J     | 0.0321 J    | 0.0695 J    | 0.0944 J    | 0.199 J     | 0.067 J     | 0.265 J    | 0.4 J      | 3.87 J     |
| PCB-21/33                          | 0.00518 C   | 0.000486 J   | 0.0000629 J | 0.00832 J   | 0.0108 J    | 0.0637 J    | 0.00795 J   | 0.0222 J   | 0.0344 J   | 0.39 J     |
| PCB-22                             | 0.00348     | 0.00062 J    | 0.00475 J   | 0.016 J     | 0.0237 J    | 0.0568 J    | 0.0119 J    | 0.0422 J   | 0.0638 J   | 0.938 J    |
| PCB-23                             | 0.000345 U  | 0.0000022 U  | 0.000592    | 0.0000399   | 0.0000538   | 0.0000946   | 0.0000405   | 0.000162   | 0.000362   | 0.00216    |
| PCB-24                             | 0.000345 U  | 0.0000025 U  | 0.0000033 U | 0.000328    | 0.0000134 U | 0.00111     | 0.000434    | 0.000771   | 0.000161 U | 0.0279     |
| PCB-25                             | 0.00213     | 0.000789     | 0.0157      | 0.0329      | 0.0451      | 0.0427      | 0.0361      | 0.159 J    | 0.26 J     | 2.6 J      |
| PCB-26/29                          | 0.00399 C   | 0.00137 J    | 0.0287 J    | 0.0596 J    | 0.082 J     | 0.0815 J    | 0.0667 J    | 0.29 J     | 0.48 J     | 5.55 J     |
| PCB-27                             | 0.00106     | 0.0002       | 0.00804     | 0.0158      | 0.0189      | 0.0147      | 0.0178      | 0.0829 J   | 0.189 J    | 1.14 J     |
| PCB-28                             | 0 CE        | 0            | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-30                             | 0 CE        | 0            | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-31                             | 0.0119      | 0.00257 J    | 0.0362 J    | 0.0738 J    | 0.1 J       | 0.197 J     | 0.078 J     | 0.318 J    | 0.498 J    | 5.62 J     |
| PCB-32                             | 0.00271     | 0.000445 J   | 0.0144 J    | 0.0262 J    | 0.0345 J    | 0.0471 J    | 0.0316 J    | 0.129 J    | 0.269 J    | 1.95 J     |
| PCB-33                             | 0 CE        | 0            | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-34                             | 0.000345 U  | 0.0000215    | 0.000003 U  | 0.0013      | 0.00175     | 0.00183     | 0.00142     | 0.00598    | 0.0114     | 0.107      |
| PCB-35                             | 0.000345 U  | 0.0000469    | 0.000235    | 0.000392    | 0.000567    | 0.0015      | 0.000419    | 0.00195 J  | 0.00285 J  | 0.0391 J   |
| PCB-36                             | 0.000345 U  | 0.000004 U   | 0.000007 U  | 0.000037    | 0.0000259 U | 0.0000452 U | 0.0000367 U | 0.000335   | 0.000716   | 0.00712    |
| PCB-37                             | 0.00283     | 0.000097 J   | 0.00377 J   | 0.00934 J   | 0.0127 J    | 0.0255 J    | 0.00766 J   | 0.0297 J   | 0.0386 J   | 0.481 J    |
| PCB-38                             | 0.000345 U  | 0.0000075    | 0.0000236   | 0.0000494   | 0.0000272 U | 0.000114    | 0.0000354 U | 0.000214 U | 0.000464   | 0.00256    |
| PCB-39                             | 0.000345 U  | 0.0000323    | 0.000313    | 0.00039     | 0.000026 U  | 0.00093     | 0.0000374 U | 0.00218    | 0.00337    | 0.0319     |
| PCB-40/41/71                       | 0.00454 C   | 0.00124      | 0.0297      | 0.0466      | 0.0817      | 0.0766      | 0.0412      | 0.231 J    | 0.285 J    | 2.34 J     |
| PCB-41                             | 0.0172 U    | 0            | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-42                             | 0.00302     | 0.00098      | 0.0171      | 0.0285      | 0.0508      | 0.0408      | 0.0249      | 0.125 J    | 0.141 J    | 1.31 J     |
| PCB-43                             | 0.000653    | 0.0001       | 0.00281     | 0.0047      | 0.00744     | 0.00676     | 0.00563     | 0.0238     | 0.0305     | 0.252      |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID  |             | Sample Date |             | Sample Depth Range (ft BGS) |             | R5-115-W   | R6-053-C   | R6-056-C   | R6-056-CR  | R6-058-C   | R6-062-C   | R6-066-C   | R6-067-C   | R7-068-C   |
|--------------------------|------------|-------------|-------------|-------------|-----------------------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                          | 5/21/2010  | R5-049-V-Z4 | 11/18/2009  | 11/19/2009  | 11/17/2009                  | 11/18/2009  | 11/19/2009 | 11/18/2009 | 11/19/2009 | 11/18/2009 | 11/19/2009 | 11/19/2009 | 11/25/2009 | 11/25/2009 | 11/25/2009 |
|                          | 3-4        | 0-0.5       | 0-1.2       | 0-1.2       | 0-1.2                       | 0-1.2       | 0-1.2      | 0-1.2      | 0-1.2      | 0-1.2      | 0-2.2      | 0-3.7      | 0-1.9      | 0-2.1      | 0-2.1      |
| PCB-44/47/65             | 0.0119 C   | 0.00491 J   | 0.0689 J    | 0.109 J     | 0.18 J                      | 0.165 J     | 0.104 J    | 0.541 J    | 0.683 J    | 0.537 J    |            |            |            |            |            |
| PCB-45/51                | 0.00261 C  | 0.000479    | 0.0136      | 0.0289      | 0.051                       | 0.0322      | 0.0215     | 0.125 J    | 0.214 J    | 1.17 J     |            |            |            |            |            |
| PCB-46                   | 0.000849   | 0.000129    | 0.00391     | 0.00882     | 0.0158                      | 0.00746     | 0.00676    | 0.0356 J   | 0.0526 J   | 0.413 J    |            |            |            |            |            |
| PCB-47                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-48                   | 0.00223    | 0.000301    | 0.00587     | 0.00866     | 0.0123                      | 0.0252      | 0.00933    | 0.0385 J   | 0.0425 J   | 0.395 J    |            |            |            |            |            |
| PCB-49/69                | 0.00787 C  | 0.00411 J   | 0.0509 J    | 0.0881 J    | 0.129 J                     | 0.111 J     | 0.0963 J   | 0.426 J    | 0.538 J    | 3.96 J     |            |            |            |            |            |
| PCB-50/53                | 0.00202 C  | 0.000469    | 0.0141      | 0.0282      | 0.0451                      | 0.026       | 0.0235     | 0.128 J    | 0.197 J    | 1.27 J     |            |            |            |            |            |
| PCB-51                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-52                   | 0.0136     | 0.0076 J    | 0.0768 J    | 0.134 J     | 0.227 J                     | 0.191 J     | 0.141 J    | 0.679 J    | 0.807 J    | 6.78 J     |            |            |            |            |            |
| PCB-53                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-54                   | 0.000345 U | 0.0000083   | 0.000707    | 0.000974    | 0.00125                     | 0.00076     | 0.00114    | 0.00726    | 0.018      | 0.0476     |            |            |            |            |            |
| PCB-55                   | 0.000345 U | 0.0000189 U | 0.0000816 U | 0.000619    | 0.000738 U                  | 0.00171     | 0.000131 U | 0.00222 J  | 0.00356 J  | 0.0235 J   |            |            |            |            |            |
| PCB-56                   | 0.00413    | 0.00191     | 0.0163      | 0.0202      | 0.0317                      | 0.0598      | 0.0208     | 0.1 J      | 0.11 J     | 0.747 J    |            |            |            |            |            |
| PCB-57                   | 0.000345 U | 0.0000436   | 0.00103     | 0.00146     | 0.00263                     | 0.00208     | 0.00168    | 0.00991    | 0.0121     | 0.105      |            |            |            |            |            |
| PCB-58                   | 0.000345 U | 0.0000922   | 0.000214    | 0.000422    | 0.000784                    | 0.000566    | 0.00061    | 0.00208    | 0.00221    | 0.0299     |            |            |            |            |            |
| PCB-59/62/75             | 0.00103 CU | 0.000558    | 0.00569     | 0.00964     | 0.0143                      | 0.0134      | 0.00759    | 0.0442     | 0.0497     | 0.484      |            |            |            |            |            |
| PCB-60                   | 0.000937   | 0.000553    | 0.00512     | 0.00617     | 0.00834                     | 0.0232      | 0.00458    | 0.033 J    | 0.0419 J   | 0.19 J     |            |            |            |            |            |
| PCB-61/70/74/76          | 0.0149 C   | 0.0071      | 0.0595      | 0.0742      | 0.122                       | 0.202       | 0.0769     | 0.36 J     | 0.412 J    | 2.82 J     |            |            |            |            |            |
| PCB-62                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-63                   | 0.000441   | 0.00032     | 0.00317     | 0.00419     | 0.00558                     | 0.00699     | 0.00401    | 0.025      | 0.0285     | 0.221      |            |            |            |            |            |
| PCB-64                   | 0.00498    | 0.00266 J   | 0.0239 J    | 0.0389 J    | 0.0571 J                    | 0.0502 J    | 0.0322 J   | 0.17 J     | 0.184 J    | 1.71 J     |            |            |            |            |            |
| PCB-65                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-66                   | 0.00899    | 0.00821 J   | 0.0399 J    | 0.0469 J    | 0.0801 J                    | 0.122 J     | 0.048 J    | 0.232      | 0.251      | 1.56       |            |            |            |            |            |
| PCB-67                   | 0.000345 U | 0.0000999   | 0.00138     | 0.00189     | 0.00276                     | 0.00459     | 0.00145    | 0.0102     | 0.0109     | 0.131      |            |            |            |            |            |
| PCB-68                   | 0.000345 U | 0.000253    | 0.00119     | 0.00141     | 0.00208                     | 0.00172     | 0.002      | 0.0096     | 0.0124     | 0.0784     |            |            |            |            |            |
| PCB-69                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-70                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-71                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-72                   | 0.000345 U | 0.00032     | 0.00182     | 0.00202     | 0.00354                     | 0.0027      | 0.00349    | 0.0133     | 0.0161     | 0.132      |            |            |            |            |            |
| PCB-73                   | 0.000345 U | 0.000117    | 0.00121     | 0.00165     | 0.0000316 U                 | 0.000886    | 0.00335    | 0.00839    | 0.0104     | 0.0688     |            |            |            |            |            |
| PCB-74                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-75                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-76                   | 0 CE       | 0           | 0           | 0           | 0                           | 0           | 0          | 0          | 0          | 0          |            |            |            |            |            |
| PCB-77                   | 0.000733   | 0.00112     | 0.00279     | 0.00383     | 0.00605                     | 0.00658     | 0.00385    | 0.0205 J   | 0.0208 J   | 0.141 J    |            |            |            |            |            |
| PCB-78                   | 0.000345 U | 0.0000192 U | 0.0000828 U | 0.0000796 U | 0.0000727 U                 | 0.0000935 U | 0.000133 U | 0.000398 U | 0.000436 U | 0.00138 U  |            |            |            |            |            |
| PCB-79                   | 0.000345 U | 0.000015 U  | 0.000065 U  | 0.000437    | 0.0000583 U                 | 0.000643    | 0.000104 U | 0.00238    | 0.00271    | 0.0135     |            |            |            |            |            |
| PCB-80                   | 0.000345 U | 0.0000155 U | 0.0000669 U | 0.0000642 U | 0.0000586 U                 | 0.0000794 U | 0.000107 U | 0.00181    | 0.000385 U | 0.00122 U  |            |            |            |            |            |
| PCB-81                   | 0.000345 U | 0.000019 U  | 0.0000707 U | 0.0000902 U | 0.0000772 U                 | 0.00019     | 0.000113 U | 0.000475   | 0.000564   | 0.00263    |            |            |            |            |            |
| PCB-82                   | 0.000707   | 0.000695    | 0.00577     | 0.00601     | 0.0133                      | 0.00798     | 0.00707    | 0.0361     | 0.0226     | 0.148      |            |            |            |            |            |
| PCB-83/99                | 0.000345 U | 0.000029 U  | 0.00319     | 0.00439     | 0.00753                     | 0.00332     | 0.0135     | 0.0214     | 0.0138     | 0.137      |            |            |            |            |            |
| PCB-84                   | 0.00196    | 0.00145     | 0.0164      | 0.0201      | 0.0466                      | 0.0227      | 0.0227     | 0.105 J    | 0.0659 J   | 0.618 J    |            |            |            |            |            |
| PCB-85/116/117           | 0.00103 CU | 0.0032      | 0.00949     | 0.00897     | 0.0173                      | 0.0111      | 0.0119     | 0.0589 J   | 0.036 J    | 0.215 J    |            |            |            |            |            |
| PCB-86/87/97/108/119/125 | 0.00315 C  | 0.00557     | 0.0255      | 0.0271      | 0.0655                      | 0.0343      | 0.0364     | 0.162 J    | 0.107 J    | 0.659 J    |            |            |            |            |            |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte              | Sample ID                   | R5-049-V-Z4 | R5-115-W    | R6-053-C    | R6-056-C    | R6-056-CR   | R6-058-C    | R6-062-C    | R6-066-C   | R6-067-C   | R7-068-C   |
|----------------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|
|                      | Sample Date                 | 5/21/2010   | 11/18/2009  | 11/19/2009  | 11/17/2009  | 11/17/2009  | 11/18/2009  | 11/19/2009  | 11/25/2009 | 11/25/2009 | 11/25/2009 |
|                      | Sample Depth Range (ft BGS) | 3-4         | 0-0.5       | 0-1.2       | 0-1.2       | 0-1.2       | 0-2.2       | 0-3.7       | 0-1.9      | 0-2.1      | 0-2.1      |
| PCB-87               | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-88/91            | 0.00108 C                   | 0.00225     | 0.0102      | 0.0127      | 0.0261      | 0.0261      | 0.0126      | 0.0169      | 0.0752     | 0.0491     | 0.392      |
| PCB-89               | 0.000345 U                  | 0.0000722   | 0.00129     | 0.00142     | 0.00325     | 0.00325     | 0.00183     | 0.00142     | 0.008      | 0.00518    | 0.0526     |
| PCB-90/101/113       | 0.00409 C                   | 0.0093      | 0.0328      | 0.036       | 0.0828      | 0.0828      | 0.0417      | 0.0532      | 0.158 J    | 0.116 J    | 0.774 J    |
| PCB-91               | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-92               | 0                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0 J        | 0 J        | 0 J        |
| PCB-93/95/98/100/102 | 0.000957 CU                 | 0.00298     | 0.00936     | 0.011       | 0.0277      | 0.0277      | 0.0111      | 0.0169      | 0.0657     | 0.0492     | 0.354      |
| PCB-94               | 0.000689 U                  | 0.000123    | 0.00138     | 0.00155     | 0.00285     | 0.00285     | 0.00143     | 0.00245     | 0.0102     | 0.0164     | 0.0422     |
| PCB-95               | 0.000345                    | 0.0000927   | 0.000836    | 0.00103     | 0.00172     | 0.00172     | 0.000885    | 0.00172     | 0.00672    | 0.00795    | 0.0349     |
| PCB-96               | 0.0041 U                    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-97               | 0.000345 CE                 | 0.0000616   | 0.000775    | 0.00123     | 0.00236     | 0.00236     | 0.00088     | 0.000998    | 0.00633    | 0.00474    | 0.0374     |
| PCB-98               | 0 CU                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-99               | 0.000689                    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-100              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-101              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-102              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-103              | 0.000345 U                  | 0.0000768   | 0.000718    | 0.000883    | 0.00171     | 0.00171     | 0.000823    | 0.00145     | 0.00567    | 0.00652    | 0.0318     |
| PCB-104              | 0.000345 U                  | 0.0000016 U | 0.000057    | 0.0000611   | 0.0000743   | 0.0000743   | 0.0000436   | 0.0000806   | 0.00056    | 0.0031     | 0.00215    |
| PCB-105              | 0.0015                      | 0.00324     | 0.011       | 0.0107      | 0.02        | 0.02        | 0.0135      | 0.0131      | 0.0689 J   | 0.0739 J   | 0.357 J    |
| PCB-106              | 0.000345 U                  | 0.0000264 U | 0.0000317 U | 0.0000708 U | 0.0000862 U | 0.0000862 U | 0.0000938 U | 0.0000496 U | 0.00041 U  | 0.000519 U | 0.00145 U  |
| PCB-107/124          | 0.000345 U                  | 0.000333    | 0.00103     | 0.000963    | 0.00226     | 0.00226     | 0.00131     | 0.00123     | 0.00619    | 0.00391    | 0.0201     |
| PCB-108              | 0.000689 CU                 | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-109              | 0 CE                        | 0.000801    | 0.00258     | 0.00251     | 0.00529     | 0.00529     | 0.00368     | 0.00426     | 0.017      | 0.0102     | 0.0654     |
| PCB-110/115          | 0.00554 C                   | 0.015 J     | 0.0455 J    | 0.0582 J    | 0.138 J     | 0.138 J     | 0.0634 J    | 0.0805 J    | 0.331 J    | 0.203 J    | 1.71 J     |
| PCB-111              | 0.000345 U                  | 0.0000183 U | 0.0000424 U | 0.000121 U  | 0.000144    | 0.000144    | 0.0000568 U | 0.000112    | 0.000438   | 0.000303   | 0.00189    |
| PCB-112              | 0.000345 U                  | 0.0000177 U | 0.000041 U  | 0.000899    | 0.0000706 U | 0.0000706 U | 0.000322    | 0.0000617 U | 0.00204    | 0.00133    | 0.00907    |
| PCB-113              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-114              | 0.000345 U                  | 0.000133    | 0.000756    | 0.000792    | 0.00117     | 0.00117     | 0.0011      | 0.000914    | 0.00491    | 0.00596    | 0.026      |
| PCB-115              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-117              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-118              | 0.00398                     | 0.00792 J   | 0.0256 J    | 0.0258 J    | 0.0575 J    | 0.0575 J    | 0.0345 J    | 0.0404 J    | 0.16 J     | 0.164 J    | 0.869 J    |
| PCB-119              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-120              | 0.000345 U                  | 0.0000639   | 0.000111    | 0.000115 U  | 0.000302    | 0.000302    | 0.000149    | 0.000305    | 0.000869   | 0.000617   | 0.00402    |
| PCB-121              | 0.000345 U                  | 0.000018 U  | 0.0000416 U | 0.000119 U  | 0.0000725   | 0.0000725   | 0.0000542 U | 0.0000627 U | 0.000304 U | 0.000391   | 0.00122    |
| PCB-122              | 0.000345 U                  | 0.000165    | 0.000432    | 0.000374    | 0.000784    | 0.000784    | 0.000525    | 0.000498    | 0.0026     | 0.00162    | 0.0097     |
| PCB-123              | 0.000345 U                  | 0.000171    | 0.000412    | 0.000428    | 0.000747    | 0.000747    | 0.000433    | 0.000432    | 0.00208    | 0.00362    | 0.0142     |
| PCB-124              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-125              | 0 CE                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0          | 0          | 0          |
| PCB-126              | 0.000345 U                  | 0.0000299 U | 0.0000408 U | 0.000138    | 0.000116 U  | 0.000116 U  | 0.000108    | 0.000215    | 0.000446 U | 0.000224 U | 0.00087 U  |
| PCB-127              | 0.000345 U                  | 0.0000272 U | 0.0000327 U | 0.000073 U  | 0.0000889 U | 0.0000889 U | 0.000102 U  | 0.0000511 U | 0.000427 U | 0.000541 U | 0.00151 U  |
| PCB-128/166          | 0.000689 CU                 | 0.00153     | 0.00351 J+  | 0.00324     | 0.00726     | 0.00726     | 0.00313     | 0.0055 J+   | 0.0186     | 0.0297     | 0.0845     |
| PCB-129/138/160/163  | 0.00181 C                   | 0.00881     | 0.0186 J+   | 0.0195      | 0.0432      | 0.0432      | 0.0161      | 0.033 J+    | 0.105 J    | 0.249 J    | 0.533 J    |
| PCB-130              | 0.000345 U                  | 0.0000613   | 0.00129 J+  | 0.00126     | 0.00315     | 0.00315     | 0.00118     | 0.00216 J+  | 0.00766    | 0.0133     | 0.0419     |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte         | Sample ID<br>Sample Date    | R5-115-W<br>11/18/2009 | R6-053-C<br>11/19/2009 | R6-056-C<br>11/17/2009 | R6-056-CR<br>11/17/2009 | R6-058-C<br>11/18/2009 | R6-062-C<br>11/19/2009 | R6-066-C<br>11/25/2009 | R6-067-C<br>11/25/2009 | R7-068-C<br>11/25/2009 |
|-----------------|-----------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                 | Sample Depth Range (ft BGS) | 0-0.5                  | 0-1.2                  | 0-1.2                  | 0-1.2                   | 0-2.2                  | 0-3.7                  | 0-1.9                  | 0-2.1                  | 0-2.1                  |
| PCB-131         | 0.000345 U                  | 0.0000686              | 0.000253 J+            | 0.000241               | 0.000699                | 0.000267               | 0.000348 J+            | 0.00411 U              | 0.00236                | 0.00755                |
| PCB-132         | 0.000761                    | 0.00272                | 0.00845 J+             | 0.00807                | 0.0242                  | 0.00749                | 0.0165 J+              | 0.0478 J               | 0.0828 J               | 0.319 J                |
| PCB-133         | 0.000345 U                  | 0.000219               | 0.000465 J+            | 0.000436               | 0.0012                  | 0.000398               | 0.00119 J+             | 0.00406 U              | 0.00683                | 0.0216                 |
| PCB-134/143     | 0.000345 U                  | 0.000473               | 0.00139 J+             | 0.00129                | 0.00359                 | 0.00123                | 0.00281 J+             | 0.00891                | 0.0119                 | 0.0488                 |
| PCB-135/151/154 | 0.000689 CU                 | 0.00291                | 0.00644 J+             | 0.00908                | 0.0194                  | 0.00515                | 0.015 J+               | 0.0405 J               | 0.101 J                | 0.258 J                |
| PCB-136         | 0.000345 U                  | 0.000786               | 0.00267 J+             | 0.00316                | 0.00814                 | 0.00222                | 0.00623 J+             | 0.0159 J               | 0.0297 J               | 0.101 J                |
| PCB-137         | 0.000345 U                  | 0.000528               | 0.0013 J+              | 0.00112                | 0.00313                 | 0.00115                | 0.00172 J+             | 0.00829                | 0.0102                 | 0.0424                 |
| PCB-138         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-139/140     | 0.000689 CU                 | 0.000172               | 0.000485 J+            | 0.000441               | 0.00122                 | 0.000414               | 0.000927 J+            | 0.00386 U              | 0.00463                | 0.0184                 |
| PCB-140         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-141         | 0.000345 U                  | 0.000998               | 0.00258 J+             | 0.00327                | 0.00507                 | 0.0022                 | 0.00394 J+             | 0.0137                 | 0.0471                 | 0.0579                 |
| PCB-142         | 0.000345 U                  | 0.0000609 U            | 0.0000392 UJ           | 0.0000899 U            | 0.000173 U              | 0.000222 U             | 0.0000934 UJ           | 0.00437 U              | 0.00195 U              | 0.0025 U               |
| PCB-143         | 0.000345 U                  | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-144         | 0.000345 U                  | 0.000191               | 0.000579 J+            | 0.00101                | 0.00171                 | 0.000509               | 0.000682 J+            | 0.00362                | 0.01                   | 0.0155                 |
| PCB-145         | 0.000345 U                  | 0.0000054 U            | 0.0000154 J+           | 0.0000233 U            | 0.0000122 U             | 0.0000374 U            | 0.0000174 J+           | 0.000185 U             | 0.000349 U             | 0.00078 U              |
| PCB-146         | 0.000345 U                  | 0.00131                | 0.0000334 UJ           | 0.00293                | 0.00578                 | 0.00217                | 0.0000796 UJ           | 0.0159                 | 0.0394                 | 0.0945                 |
| PCB-147/149     | 0.00156 C                   | 0.00662                | 0.0162 J+              | 0.0182                 | 0.0444                  | 0.0145                 | 0.037 J+               | 0.0935 J               | 0.214 J                | 0.608 J                |
| PCB-148         | 0.000345 U                  | 0.0000382              | 0.0000917 J+           | 0.000124               | 0.000246                | 0.0000656              | 0.000377 J+            | 0.000817               | 0.00186                | 0.00592                |
| PCB-149         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-150         | 0.000345 U                  | 0.0000148              | 0.0000463 J+           | 0.0000662              | 0.000127                | 0.000046               | 0.000236 J+            | 0.000416               | 0.00111                | 0.002                  |
| PCB-151         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-152         | 0.000345 U                  | 0.0000146              | 0.0000549 J+           | 0.0000612              | 0.000105                | 0.000037               | 0.0000976 J+           | 0.000334               | 0.0009                 | 0.00203                |
| PCB-153/168     | 0.00136 C                   | 0.00679                | 0.0138 J+              | 0.0174                 | 0.0286                  | 0.012                  | 0.0248 J+              | 0.0749 J               | 0.214 J                | 0.379 J                |
| PCB-154         | 0.000345 U                  | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-155         | 0.000345 U                  | 0.0000031 U            | 0.0000034 U            | 0.0000128 U            | 0.0000066 U             | 0.0000278 U            | 0.0000354              | 0.000122 U             | 0.000317               | 0.00058 U              |
| PCB-156/157     | 0.000689 CU                 | 0.000755               | 0.00181                | 0.00184                | 0.00379                 | 0.00175                | 0.00253                | 0.0108                 | 0.0202                 | 0.0498                 |
| PCB-157         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-158         | 0.000345 U                  | 0.000636               | 0.00178 J+             | 0.00196                | 0.00421                 | 0.0017                 | 0.00257 J+             | 0.0103                 | 0.0233                 | 0.0509                 |
| PCB-159         | 0.000345 U                  | 0.000015 U             | 0.000026 UJ            | 0.0000555 U            | 0.0000437 U             | 0.0000954 U            | 0.0000455 UJ           | 0.000428               | 0.00587                | 0.00218                |
| PCB-160         | 0.000345 U                  | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-161         | 0.000345 U                  | 0.0000436 U            | 0.00219 J+             | 0.0000626 U            | 0.000121 U              | 0.000157 U             | 0.00464 J+             | 0.00301 U              | 0.00134 U              | 0.00172 U              |
| PCB-162         | 0.000345 U                  | 0.0000148 U            | 0.0000256 UJ           | 0.0000545 U            | 0.0000429 U             | 0.0000944 U            | 0.0000449 UJ           | 0.000481               | 0.00107 U              | 0.00092 U              |
| PCB-163         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-164         | 0.000345 U                  | 0.000452               | 0.000949 J+            | 0.00111                | 0.00176                 | 0.00082                | 0.00189 J+             | 0.00459                | 0.015                  | 0.0191                 |
| PCB-165         | 0.000345 U                  | 0.000049 U             | 0.0000433 J+           | 0.0000699 U            | 0.000135 U              | 0.00017 U              | 0.000143 J+            | 0.00333 U              | 0.00149 U              | 0.00191                |
| PCB-166         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-167         | 0.000345 U                  | 0.000328               | 0.000556               | 0.000621               | 0.00112                 | 0.000551               | 0.000777               | 0.00367                | 0.00677                | 0.0161                 |
| PCB-168         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-169         | 0.000345 U                  | 0.0000286              | 0.0000531 UJ           | 0.0000699 U            | 0.0000501 U             | 0.0000853 U            | 0.00016 UJ             | 0.000315 U             | 0.00118 U              | 0.00086 U              |
| PCB-170         | 0.000345 U                  | 0.00121                | 0.00206                | 0.00512                | 0.00319                 | 0.00226                | 0.00288                | 0.0117                 | 0.129                  | 0.0591                 |
| PCB-171/173     | 0.000689 CU                 | 0.00035                | 0.000757               | 0.00192                | 0.000126 U              | 0.000716               | 0.00109                | 0.00437                | 0.0401                 | 0.0228                 |
| PCB-172         | 0.000345 U                  | 0.000214               | 0.0003                 | 0.0012                 | 0.000568                | 0.000388               | 0.000309 U             | 0.00234                | 0.023                  | 0.0119                 |
| PCB-173         | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte             | Sample ID<br>Sample Date    | R5-115-W<br>11/18/2009 | R6-053-C<br>11/19/2009 | R6-056-C<br>11/17/2009 | R6-056-CR<br>11/17/2009 | R6-058-C<br>11/18/2009 | R6-062-C<br>11/19/2009 | R6-066-C<br>11/25/2009 | R6-067-C<br>11/25/2009 | R7-068-C<br>11/25/2009 |
|---------------------|-----------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                     | Sample Depth Range (ft BGS) | 0-0.5                  | 0-1.2                  | 0-1.2                  | 0-1.2                   | 0-2.2                  | 0-3.7                  | 0-1.9                  | 0-2.1                  | 0-2.1                  |
| PCB-174             | 0.000348                    | 0.00147                | 0.00265                | 0.0112                 | 0.00388                 | 0.00249                | 0.00354                | 0.0152 J               | 0.146 J                | 0.0772 J               |
| PCB-175             | 0.000345 U                  | 0.0000417              | 0.0000931              | 0.000481               | 0.0000122 U             | 0.000115 U             | 0.000122               | 0.00654                | 0.00567                | 0.00401                |
| PCB-176             | 0.000345 U                  | 0.000145               | 0.000344               | 0.00139                | 0.000715                | 0.000318               | 0.000525               | 0.00211                | 0.0167                 | 0.0127                 |
| PCB-177             | 0.000345 U                  | 0.000912               | 0.00167                | 0.0046                 | 0.00286                 | 0.00163                | 0.00282                | 0.0094                 | 0.0865                 | 0.0596                 |
| PCB-178             | 0.000345 U                  | 0.000425               | 0.00069                | 0.00291                | 0.00143                 | 0.000682               | 0.00147                | 0.00523                | 0.0291                 | 0.0312                 |
| PCB-179             | 0.000345 U                  | 0.000678               | 0.00131                | 0.00565                | 0.00248                 | 0.00109                | 0.0024                 | 0.00848 J              | 0.0542 J               | 0.048 J                |
| PCB-180/193         | 0.000689 CU                 | 0.00252                | 0.00465                | 0.0247                 | 0.00644                 | 0.00472                | 0.00636                | 0.0263 J               | 0.286 J                | 0.131 J                |
| PCB-181             | 0.000345 U                  | 0.000125 U             | 0.0000279              | 0.000193 U             | 0.00012 U               | 0.00019 U              | 0.0000298 U            | 0.000356 U             | 0.000671 U             | 0.00141 U              |
| PCB-182             | 0.000345 U                  | 0.0000046 U            | 0.0000055 U            | 0.0000231 U            | 0.000012 U              | 0.000114 U             | 0.0000126 U            | 0.000227 U             | 0.000484               | 0.00063 U              |
| PCB-183/185         | 0.000689 CU                 | 0.000779               | 0.00206                | 0.00843                | 0.00243                 | 0.00146                | 0.00309                | 0.00954                | 0.0881                 | 0.0543                 |
| PCB-184             | 0.000345 U                  | 0.0000034 U            | 0.0000041 U            | 0.0000167 U            | 0.0000087 U             | 0.0000837 U            | 0.0000094 U            | 0.000171 U             | 0.000189 U             | 0.00048 U              |
| PCB-185             | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-186             | 0.000345 U                  | 0.0000037 U            | 0.0000045 U            | 0.0000182 U            | 0.0000095 U             | 0.0000902 U            | 0.0000103 U            | 0.000188 U             | 0.000208 U             | 0.00052 U              |
| PCB-187             | 0.000491                    | 0.00222                | 0.00369                | 0.0219                 | 0.00637                 | 0.00322                | 0.00626                | 0.0234 J               | 0.168 J                | 0.128 J                |
| PCB-188             | 0.000345 U                  | 0.0000037 U            | 0.0000047 U            | 0.0000182 U            | 0.0000098 U             | 0.000107 U             | 0.0000306              | 0.000164 U             | 0.000251               | 0.00005 U              |
| PCB-189             | 0.000345 U                  | 0.0000509              | 0.0000738              | 0.000201               | 0.000118                | 0.0000891              | 0.000103               | 0.000429               | 0.00441                | 0.00249                |
| PCB-190             | 0.000345 U                  | 0.000028               | 0.000354               | 0.00157                | 0.00064                 | 0.000529               | 0.000567               | 0.00267                | 0.0302                 | 0.0134                 |
| PCB-191             | 0.000345 U                  | 0.0000324              | 0.0000773              | 0.000269               | 0.0000921 U             | 0.000151 U             | 0.0000926              | 0.000519               | 0.00559                | 0.00248                |
| PCB-192             | 0.000345 U                  | 0.0000108 U            | 0.0000123 U            | 0.000165 U             | 0.000103 U              | 0.000167 U             | 0.000423               | 0.000304 U             | 0.000574 U             | 0.00121 U              |
| PCB-193             | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-194             | 0.000345 U                  | 0.000784               | 0.00137                | 0.0186                 | 0.00152                 | 0.00169                | 0.00182                | 0.00764                | 0.0862                 | 0.0426                 |
| PCB-195             | 0.000345 U                  | 0.000319               | 0.000507               | 0.00497                | 0.000646                | 0.000527               | 0.000544               | 0.0029                 | 0.0372                 | 0.0156                 |
| PCB-196             | 0.000345 U                  | 0.000391               | 0.000754               | 0.0122                 | 0.000978                | 0.000755               | 0.00105                | 0.00443                | 0.0494                 | 0.0269                 |
| PCB-197/200         | 0.000689 CU                 | 0.000154               | 0.000292               | 0.00445                | 0.000362                | 0.000238               | 0.000441               | 0.00178                | 0.015                  | 0.00923                |
| PCB-198/199         | 0.000689 CU                 | 0.00135                | 0.00205                | 0.0316                 | 0.00261                 | 0.00201                | 0.00426                | 0.012                  | 0.094                  | 0.0636                 |
| PCB-199             | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-200             | 0 CE                        | 0                      | 0                      | 0                      | 0                       | 0                      | 0                      | 0                      | 0                      | 0                      |
| PCB-201             | 0.000345 U                  | 0.000124               | 0.000268               | 0.00403                | 0.000321                | 0.000246               | 0.000482               | 0.0015                 | 0.0117                 | 0.00931                |
| PCB-202             | 0.000345 U                  | 0.000285               | 0.000479               | 0.00572                | 0.000572                | 0.000434               | 0.00103                | 0.00299                | 0.0137                 | 0.0182                 |
| PCB-203             | 0.000345 U                  | 0.000686               | 0.00111                | 0.0211                 | 0.00128                 | 0.00104                | 0.00173                | 0.00599                | 0.0557                 | 0.0309                 |
| PCB-204             | 0.000345 U                  | 0.0000029 U            | 0.0000035 U            | 0.0000174 U            | 0.0000225 U             | 0.0000424 U            | 0.0000066 U            | 0.000162 U             | 0.000469 U             | 0.00068 U              |
| PCB-205             | 0.000345 U                  | 0.0000417              | 0.0000596              | 0.000973               | 0.0000896               | 0.0000618              | 0.0000805              | 0.000385               | 0.00501                | 0.00193                |
| PCB-206             | 0.000628                    | 0.00105                | 0.0016                 | 0.0179                 | 0.00194                 | 0.00169                | 0.00668                | 0.00872                | 0.0267                 | 0.0414                 |
| PCB-207             | 0.000345 U                  | 0.000135               | 0.000196               | 0.00301                | 0.000235                | 0.000183               | 0.000841               | 0.00101                | 0.00319                | 0.00554                |
| PCB-208             | 0.000345 U                  | 0.000645               | 0.000723               | 0.00643                | 0.00127                 | 0.000722               | 0.00329                | 0.00433                | 0.00621                | 0.0244                 |
| PCB-209             | 0.00136                     | 0.00626                | 0.00333                | 0.00607                | 0.00548                 | 0.00519                | 0.00866                | 0.0192                 | 0.0196                 | 0.134                  |
| TOTAL PCB CONGENERS | 0.205                       | 0.18                   | 1                      | 1.8                    | 2.7                     | 2.8                    | 1.8                    | 7.9                    | 12                     | 86                     |

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte      | Sample ID  |             | Sample Date |             | Sample Depth Range (ft BGS) |            | PCB Congeners by HRGC/HRMS (mg/kg) |             |             |             |             |  |  |  |  |  |  |  |  |  |  |  |
|--------------|------------|-------------|-------------|-------------|-----------------------------|------------|------------------------------------|-------------|-------------|-------------|-------------|--|--|--|--|--|--|--|--|--|--|--|
|              | R7-068-CR  | R7-071-C    | R7-074-C    | R7-075-C    | R7-080-C                    | R7-081-C   | R7-082-CR                          | R7-084-C    | R7-086-C    | R7-087-C    |             |  |  |  |  |  |  |  |  |  |  |  |
|              | 11/25/2009 | 11/25/2009  | 11/24/2009  | 11/24/2009  | 12/2/2009                   | 12/2/2009  | 11/30/2009                         | 11/30/2009  | 11/30/2009  | 11/30/2009  |             |  |  |  |  |  |  |  |  |  |  |  |
|              | 0-2.1      | 0-1.5       | 0-2.3       | 0-2.1       | 0-1.7                       | 0-1.7      | 0-1.6                              | 0-3.3       | 0-3.2       | 0-2.1       |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-1        | 0.363 J    | 0.185 J     | 0.139       | 0.0742      | 0.0386                      | J          | 2.01 J                             | 0.073 J     | 0.138 J     | 0.268 J     | 0.0962 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-2        | 0.0347 J   | 0.00646     | 0.00413     | 0.00218     | 0.00202                     | J          | 0.0727 J                           | 0.00849 J   | 0.00954 J   | 0.0159 J    | 0.00787 J   |  |  |  |  |  |  |  |  |  |  |  |
| PCB-3        | 0.158 J    | 0.0681 J    | 0.0339      | 0.0153      | 0.0163                      | J          | 0.596 J                            | 0.0514 J    | 0.0655 J    | 0.117 J     | 0.0519 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-4        | 2.05 J     | 0.927 J     | 0.603       | 0.526       | 0.199                       | J          | 4.86 J                             | 0.145 J     | 0.642 J     | 1.1 J       | 0.429 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-5        | 0.0674 J   | 0.0177      | 0.00373     | 0.00676     | 0.00352                     | J          | 0.119 J                            | 0.00321 J   | 0.01 J      | 0.019 J     | 0.00992 J   |  |  |  |  |  |  |  |  |  |  |  |
| PCB-6        | 1.5 J      | 0.332 J     | 0.107       | 0.186       | 0.0595                      | J          | 1.64 J                             | 0.0748 J    | 0.237 J     | 0.381 J     | 0.209 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-7        | 0.0525 J   | 0.0482      | 0.00823     | 0.00922     | 0.00969                     | J          | 0.092 J                            | 0.00598 J   | 0.0206 J    | 0.0445 J    | 0.0266 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-8        | 0.639 J    | 0.351 J     | 0.14        | 0.139       | 0.0553                      | J          | 1.79 J                             | 0.0589 J    | 0.217 J     | 0.404 J     | 0.189 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-9        | 0.15 J     | 0.0487 J    | 0.0209      | 0.0217      | 0.0108                      | J          | 0.243 J                            | 0.0117 J    | 0.0393 J    | 0.0563 J    | 0.0379 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-10       | 0.0197     | 0.028       | 0.0179      | 0.00893     | 0.00384                     |            | 0.109                              | 0.00219     | 0.0125      | 0.0213      | 0.00552     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-11       | 0.137 J    | 0.0332 J    | 0.00795     | 0.0131      | 0.00724                     | J          | 0.141 J                            | 0.00949 J   | 0.0242 J    | 0.0391 J    | 0.0235 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-12/13    | 0.607 J    | 0.191       | 0.0587      | 0.0801      | 0.0347                      | J          | 0.925 J                            | 0.0686 J    | 0.128 J     | 0.206 J     | 0.123 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-13       | 0          | 0           | 0           | 0           | 0                           |            | 0                                  | 0           | 0           | 0           | 0           |  |  |  |  |  |  |  |  |  |  |  |
| PCB-14       | 0.000245   | 0.0000272 U | 0.000097 J  | 0.0000592 U | 0.0000337 U                 | 0.000169 U | 0.000393 J                         | 0.0000508 U | 0.0000587 U | 0.0000393 U | 0.0000393 U |  |  |  |  |  |  |  |  |  |  |  |
| PCB-15       | 1.07 J     | 0.343 J     | 0.0873      | 0.18        | 0.0825                      | J          | 1.64 J                             | 0.118 J     | 0.236 J     | 0.423 J     | 0.294 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-16       | 0.532 J    | 0.123 J     | 0.0202      | 0.0425      | 0.0162                      | J          | 0.208 J                            | 0.0197 J    | 0.0692 J    | 0.09 J      | 0.0606 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-17       | 1.98 J     | 1.16 J      | 0.354       | 0.401       | 0.161                       | J          | 2.55 J                             | 0.23 J      | 0.565 J     | 0.944 J     | 0.51 J      |  |  |  |  |  |  |  |  |  |  |  |
| PCB-18/30    | 2.43 J     | 0.711 J     | 0.167       | 0.386       | 0.108                       | J          | 1.74 J                             | 0.148 J     | 0.389 J     | 0.515 J     | 0.395 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-19       | 0.513 J    | 0.572 J     | 0.205       | 0.163       | 0.0669                      | J          | 1.33 J                             | 0.0845 J    | 0.281 J     | 0.488 J     | 0.165 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-20/28    | 2.68 J     | 0.899 J     | 0.177       | 0.319       | 0.162                       | J          | 1.97 J                             | 0.187 J     | 0.547 J     | 0.781 J     | 0.583 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-21/33    | 0.293 J    | 0.0901 J    | 0.0116      | 0.0262      | 0.0202                      | J          | 0.215 J                            | 0.0172 J    | 0.0784 J    | 0.0776 J    | 0.0491 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-22       | 0.646 J    | 0.184 J     | 0.0279      | 0.0577      | 0.0317                      | J          | 0.444 J                            | 0.0339 J    | 0.113 J     | 0.148 J     | 0.113 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-23       | 0.00158    | 0.00098     | 0.000164 U  | 0.000144 U  | 0.000126                    | 0.000908   | 0.000114                           | 0.000455    | 0.000707    | 0.000292    |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-24       | 0.0169     | 0.0000615 U | 0.000185 U  | 0.000162 U  | 0.000133 U                  | 0.000186 U | 0.000738 U                         | 0.00135     | 0.00015 U   | 0.00013 U   |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-25       | 1.6 J      | 0.552       | 0.122       | 0.211       | 0.0855                      | J          | 1.04 J                             | 0.114 J     | 0.278 J     | 0.434 J     | 0.323 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-26/29    | 3.24 J     | 0.937 J     | 0.256       | 0.416       | 0.159                       | J          | 2.04 J                             | 0.236 J     | 0.536 J     | 0.807 J     | 0.597 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-27       | 0.599 J    | 0.532       | 0.14        | 0.133       | 0.0559                      | J          | 0.859 J                            | 0.0877 J    | 0.204 J     | 0.332 J     | 0.164 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-28       | 0          | 0           | 0           | 0           | 0                           |            | 0                                  | 0           | 0           | 0           | 0           |  |  |  |  |  |  |  |  |  |  |  |
| PCB-30       | 0          | 0           | 0           | 0           | 0                           |            | 0                                  | 0           | 0           | 0           | 0           |  |  |  |  |  |  |  |  |  |  |  |
| PCB-31       | 3.46 J     | 0.944 J     | 0.262       | 0.511       | 0.2                         | J          | 2.69 J                             | 0.268 J     | 0.696 J     | 0.968 J     | 0.759 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-32       | 1.09 J     | 0.676 J     | 0.191       | 0.225       | 0.0864                      | J          | 1.57 J                             | 0.134 J     | 0.319 J     | 0.521 J     | 0.287 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-33       | 0          | 0           | 0           | 0           | 0                           |            | 0                                  | 0           | 0           | 0           | 0           |  |  |  |  |  |  |  |  |  |  |  |
| PCB-34       | 0.062      | 0.0287      | 0.00739     | 0.00927     | 0.00352                     | 0.0594     | 0.00557                            | 0.0141      | 0.0208      | 0.014       |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-35       | 0.0245 J   | 0.00694     | 0.000881    | 0.00281     | 0.00104                     | J          | 0.0162 J                           | 0.00146 J   | 0.00426 J   | 0.00607 J   | 0.00458 J   |  |  |  |  |  |  |  |  |  |  |  |
| PCB-36       | 0.00435    | 0.00142     | 0.000397    | 0.000423    | 0.000225                    | 0.0028     | 0.000339                           | 0.000915    | 0.000209 U  | 0.000231 U  |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-37       | 0.363 J    | 0.105 J     | 0.0142      | 0.029       | 0.0282                      | J          | 0.212 J                            | 0.0258 J    | 0.0664 J    | 0.0958 J    | 0.0677 J    |  |  |  |  |  |  |  |  |  |  |  |
| PCB-38       | 0.00205    | 0.00196     | 0.000185 U  | 0.000247 U  | 0.000172 U                  | 0.000274 U | 0.000132 U                         | 0.000512    | 0.0002 U    | 0.000221 U  |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-39       | 0.0195     | 0.0106      | 0.000187 U  | 0.000249 U  | 0.000167 U                  | 0.000265 U | 0.00169                            | 0.000191 U  | 0.000211 U  | 0.000211 U  |             |  |  |  |  |  |  |  |  |  |  |  |
| PCB-40/41/71 | 1.69 J     | 0.926       | 0.154       | 0.222       | 0.131                       | J          | 1.34 J                             | 0.162 J     | 0.499 J     | 0.615 J     | 0.421 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-41       | 0          | 0           | 0           | 0           | 0                           |            | 0                                  | 0           | 0           | 0           | 0           |  |  |  |  |  |  |  |  |  |  |  |
| PCB-42       | 0.96 J     | 0.556       | 0.0695      | 0.106       | 0.0639                      | J          | 0.515 J                            | 0.0752 J    | 0.221 J     | 0.271 J     | 0.207 J     |  |  |  |  |  |  |  |  |  |  |  |
| PCB-43       | 0.195      | 0.126       | 0.012       | 0.0154      | 0.0105                      | 0.0895     | 0.0123                             | 0.0456      | 0.0593      | 0.0378      |             |  |  |  |  |  |  |  |  |  |  |  |

Key at the end of Table

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID   |                             | Sample Date |            | Sample Depth Range (ft BGS) |            | R7-071-C   | R7-074-C   | R7-075-C   | R7-080-C   | R7-081-C   | R7-082-CR  | R7-084-C   | R7-086-C   | R7-087-C   |
|--------------------------|-------------|-----------------------------|-------------|------------|-----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                          | Sample Date | Sample Depth Range (ft BGS) | 11/25/2009  | 11/24/2009 | 11/24/2009                  | 11/24/2009 | 11/25/2009 | 11/24/2009 | 11/24/2009 | 12/2/2009  | 12/2/2009  | 11/30/2009 | 11/30/2009 | 11/30/2009 | 11/30/2009 |
|                          | 0-2.1       | 0-2.1                       | 0-1.5       | 0-2.3      | 0-2.1                       | 0-1.7      | 0-1.7      | 0-2.1      | 0-2.1      | 0-1.7      | 0-1.7      | 0-1.6      | 0-3.3      | 0-3.2      | 0-2.1      |
| PCB-44/47/65             | 4.02 J      | 0                           | 2.06 J      | 0.352      | 0.455                       | 0.321      | J          | 2.34 J     | 0.354 J    | 1.04 J     | 1.36 J     | 0.901 J    |            |            |            |
| PCB-45/51                | 0.851 J     | 0                           | 0.793       | 0.141      | 0.134                       | 0.0996     | J          | 0.715 J    | 0.111 J    | 0.307 J    | 0.432 J    | 0.239 J    |            |            |            |
| PCB-46                   | 0.293 J     | 0                           | 0.234       | 0.0277     | 0.0371                      | 0.0211     | J          | 0.22 J     | 0.0289 J   | 0.0785 J   | 0.0988 J   | 0.06 J     |            |            |            |
| PCB-47                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-48                   | 0.328 J     | 0                           | 0.196       | 0.0202     | 0.034                       | 0.0233     | J          | 0.197 J    | 0.025 J    | 0.13 J     | 0.126 J    | 0.0656 J   |            |            |            |
| PCB-49/69                | 2.81 J      | 0                           | 1.45 J      | 0.246      | 0.382                       | 0.24       | J          | 1.84 J     | 0.293 J    | 0.765 J    | 0.987 J    | 0.738 J    |            |            |            |
| PCB-50/53                | 0.89 J      | 0                           | 0.649       | 0.12       | 0.14                        | 0.085      | J          | 0.704 J    | 0.112 J    | 0.266 J    | 0.377 J    | 0.236 J    |            |            |            |
| PCB-51                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-52                   | 4.47 J      | 0                           | 1.91 J      | 0.391      | 0.588                       | 0.377      | J          | 2.86 J     | 0.399 J    | 1.16 J     | 1.41 J     | 1.03 J     |            |            |            |
| PCB-53                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-54                   | 0.034       | 0                           | 0.06        | 0.0131     | 0.00648                     | 0.00897    |            | 0.0485     | 0.00732    | 0.0218     | 0.0375     | 0.0144     |            |            |            |
| PCB-55                   | 0.0175 J    | 0                           | 0.0169      | 0.000397 U | 0.000421 U                  | 0.000502   | U          | 0.000856 U | 0.00194 J  | 0.0111 J   | 0.000461 U | 0.000334 U |            |            |            |
| PCB-56                   | 0.622 J     | 0                           | 0.44        | 0.0408     | 0.0625                      | 0.0696     | J          | 0.432 J    | 0.068 J    | 0.304 J    | 0.31 J     | 0.17 J     |            |            |            |
| PCB-57                   | 0.0738      | 0                           | 0.0471      | 0.00515    | 0.00554                     | 0.00451    |            | 0.0275     | 0.00464    | 0.0144     | 0.0214     | 0.0143     |            |            |            |
| PCB-58                   | 0.0191      | 0                           | 0.00934     | 0.00103    | 0.00176                     | 0.00122    |            | 0.00583    | 0.00133    | 0.00448    | 0.00368    | 0.0041     |            |            |            |
| PCB-59/62/75             | 0.368       | 0                           | 0.259       | 0.0242     | 0.0358                      | 0.0228     |            | 0.165      | 0.0236     | 0.0777     | 0.0992     | 0.0742     |            |            |            |
| PCB-60                   | 0.138 J     | 0                           | 0.201       | 0.0136     | 0.0106                      | 0.0272     | J          | 0.199 J    | 0.0258 J   | 0.138 J    | 0.144 J    | 0.0437 J   |            |            |            |
| PCB-61/70/74/76          | 2.25 J      | 0                           | 1.61        | 0.173      | 0.256                       | 0.236      | J          | 1.33 J     | 0.237 J    | 0.994 J    | 1.05 J     | 0.593 J    |            |            |            |
| PCB-62                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-63                   | 0.171       | 0                           | 0.131       | 0.0121     | 0.0155                      | 0.0119     |            | 0.0998     | 0.0138     | 0.0513     | 0.0641     | 0.041      |            |            |            |
| PCB-64                   | 1.29 J      | 0                           | 0.711 J     | 0.0866     | 0.145                       | 0.0942     | J          | 0.704 J    | 0.0991 J   | 0.353 J    | 0.392 J    | 0.306 J    |            |            |            |
| PCB-65                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-66                   | 1.36        | 0                           | 0.922 J     | 0.102      | 0.142                       | 0.169      |            | 0.871      | 0.154      | 0.571      | 0.642      | 0.389      |            |            |            |
| PCB-67                   | 0.0976      | 0                           | 0.0511      | 0.00522    | 0.00751                     | 0.00591    |            | 0.037      | 0.00568    | 0.0219     | 0.0263     | 0.0168     |            |            |            |
| PCB-68                   | 0.0575      | 0                           | 0.0461      | 0.00776    | 0.00741                     | 0.00541    |            | 0.0333     | 0.00688    | 0.0153     | 0.0251     | 0.017      |            |            |            |
| PCB-69                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-70                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-71                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-72                   | 0.0978      | 0                           | 0.0634      | 0.00871    | 0.00928                     | 0.00774    |            | 0.0477     | 0.00798    | 0.0205     | 0.03       | 0.0225     |            |            |            |
| PCB-73                   | 0.0483      | 0                           | 0.0341      | 0.00757    | 0.00605                     | 0.00541    |            | 0.036      | 0.00577    | 0.0162     | 0.0178     | 0.0127     |            |            |            |
| PCB-74                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-75                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-76                   | 0           | 0                           | 0           | 0          | 0                           | 0          |            | 0          | 0          | 0          | 0          | 0          |            |            |            |
| PCB-77                   | 0.114 J     | 0                           | 0.0886      | 0.00754    | 0.0112                      | 0.0167     | J          | 0.0758 J   | 0.0134 J   | 0.051 J    | 0.0618 J   | 0.0302 J   |            |            |            |
| PCB-78                   | 0.00198 U   | 0                           | 0.000485 U  | 0.000414 U | 0.000439 U                  | 0.000484   | U          | 0.000826 U | 0.000289 U | 0.000473 U | 0.000456 U | 0.00033 U  |            |            |            |
| PCB-79                   | 0.0111      | 0                           | 0.0145      | 0.000341 U | 0.000362 U                  | 0.000391   | U          | 0.000667 U | 0.00161    | 0.00576    | 0.000372 U | 0.000269 U |            |            |            |
| PCB-80                   | 0.00175 U   | 0                           | 0.000391 U  | 0.00093    | 0.00104                     | 0.00103    |            | 0.00473    | 0.000924   | 0.00293    | 0.00377    | 0.00259    |            |            |            |
| PCB-81                   | 0.00189 U   | 0                           | 0.00193     | 0.000435 U | 0.000493 U                  | 0.000543   | U          | 0.00213    | 0.000445   | 0.00125    | 0.000395 U | 0.00053    |            |            |            |
| PCB-82                   | 0.128       | 0                           | 0.21        | 0.016      | 0.0167                      | 0.00785    |            | 0.0278     | 0.0218     | 0.0895     | 0.0789     | 0.0339     |            |            |            |
| PCB-83/99                | 0.109       | 0                           | 0.134       | 0.00809    | 0.0131                      | 0.00379    |            | 0.0192     | 0.0129     | 0.0383     | 0.0331     | 0.024      |            |            |            |
| PCB-84                   | 0.513 J     | 0                           | 0.72        | 0.0568     | 0.0775                      | 0.0206     | J          | 0.0867 J   | 0.057 J    | 0.173 J    | 0.15 J     | 0.108 J    |            |            |            |
| PCB-85/116/117           | 0.165 J     | 0                           | 0.303       | 0.0266     | 0.029                       | 0.0118     | J          | 0.0438 J   | 0.0328 J   | 0.125 J    | 0.116 J    | 0.0551 J   |            |            |            |
| PCB-86/87/97/108/119/125 | 0.59 J      | 0                           | 0.972       | 0.0738     | 0.0773                      | 0.0378     | J          | 0.118 J    | 0.0969 J   | 0.356 J    | 0.318 J    | 0.157 J    |            |            |            |

Key at the end of Table



Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte              | Sample ID  |            | Sample Date |            | Sample Depth Range (ft BGS) |            | R7-071-C   | R7-074-C   | R7-075-C   | R7-080-C   | R7-081-C   | R7-082-CR  | R7-084-C   | R7-086-C   | R7-087-C   |
|----------------------|------------|------------|-------------|------------|-----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                      | 11/25/2009 | 0-2.1      | 11/25/2009  | 0-1.5      | 0-2.3                       | 0-2.1      | 11/24/2009 | 12/2/2009  | 0-1.7      | 12/2/2009  | 0-1.7      | 11/30/2009 | 0-3.3      | 11/30/2009 | 0-2.1      |
| PCB-87               | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-88/91            | 0.331      | 0.43       | 0.388       | 0.0517     | 0.0155                      | 0.0592     | 0.0411     | 0.118      | 0.112      | 0.081      | 0.081      | 0.081      | 0.081      | 0.081      | 0.081      |
| PCB-89               | 0.0419     | 0.0548     | 0.00379     | 0.00505    | 0.0016                      | 0.00611    | 0.00481    | 0.0179     | 0.0154     | 0.00888    | 0.00888    | 0.00888    | 0.00888    | 0.00888    | 0.00888    |
| PCB-90/101/113       | 0.661 J    | 1.26       | 0.0996      | 0.113      | 0.0358                      | J          | 0.0862 J   | 0.0891 J   | 0.279 J    | 0.155 J    | 0.155 J    | 0.155 J    | 0.155 J    | 0.155 J    | 0.155 J    |
| PCB-91               | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-92               | 0 J        | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-93/95/98/100/102 | 0.312      | 0.444      | 0.035       | 0.0361     | 0.0166                      | 0.0458     | 0.0358     | 0.103      | 0.0998     | 0.071      | 0.071      | 0.071      | 0.071      | 0.071      | 0.071      |
| PCB-94               | 0.0387     | 0.0824     | 0.0122      | 0.00728    | 0.00818                     | 0.0104     | 0.00813    | 0.0264     | 0.0263     | 0.0131     | 0.0131     | 0.0131     | 0.0131     | 0.0131     | 0.0131     |
| PCB-95               | 0.0338     | 0.0483     | 0.00522     | 0.00485    | 0.00306                     | 0.00623    | 0.00434    | 0.0118     | 0.014      | 0.00806    | 0.00806    | 0.00806    | 0.00806    | 0.00806    | 0.00806    |
| PCB-96               | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-97               | 0.0301     | 0.0549     | 0.00367     | 0.00481    | 0.0015                      | 0.00679    | 0.00383    | 0.0119     | 0.0117     | 0.00728    | 0.00728    | 0.00728    | 0.00728    | 0.00728    | 0.00728    |
| PCB-98               | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-99               | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-100              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-101              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-102              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-103              | 0.0293     | 0.0364     | 0.00431     | 0.00431    | 0.00215                     | 0.00497    | 0.00392    | 0.00911    | 0.0098     | 0.00736    | 0.00736    | 0.00736    | 0.00736    | 0.00736    | 0.00736    |
| PCB-104              | 0.0014     | 0.00476    | 0.00102     | 0.000363   | 0.0018                      | 0.00281    | 0.000732   | 0.00287    | 0.00389    | 0.00112    | 0.00112    | 0.00112    | 0.00112    | 0.00112    | 0.00112    |
| PCB-105              | 0.18 J     | 0.44       | 0.032       | 0.0262     | 0.0338                      | J          | 0.161 J    | 0.0391 J   | 0.242 J    | 0.0735 J   | 0.0735 J   | 0.0735 J   | 0.0735 J   | 0.0735 J   | 0.0735 J   |
| PCB-106              | 0.00134 U  | 0.000788 U | 0.000368 U  | 0.000603 U | 0.000692 U                  | 0.000176 U | 0.000394 U | 0.000596 U | 0.000525 U | 0.000374 U | 0.000374 U | 0.000374 U | 0.000374 U | 0.000374 U | 0.000374 U |
| PCB-107/124          | 0.0182     | 0.0436     | 0.00276     | 0.00247    | 0.00144                     | 0.00383    | 0.00377    | 0.0151     | 0.0132     | 0.00542    | 0.00542    | 0.00542    | 0.00542    | 0.00542    | 0.00542    |
| PCB-108              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-109              | 0.0594     | 0.126      | 0.00722     | 0.00751    | 0.00345                     | 0.0101     | 0.0091     | 0.0346     | 0.0307     | 0.0166     | 0.0166     | 0.0166     | 0.0166     | 0.0166     | 0.0166     |
| PCB-110/115          | 1.47 J     | 1.76 J     | 0.153       | 0.181      | 0.0721                      | J          | 0.226 J    | 0.183 J    | 0.524 J    | 0.341 J    | 0.341 J    | 0.341 J    | 0.341 J    | 0.341 J    | 0.341 J    |
| PCB-111              | 0.000696 U | 0.00196    | 0.000242 U  | 0.000447 U | 0.000219 U                  | 0.000202   | 0.000231 U | 0.000399 U | 0.000558   | 0.000416 U | 0.000416 U | 0.000416 U | 0.000416 U | 0.000416 U | 0.000416 U |
| PCB-112              | 0.0079     | 0.0146     | 0.000238 U  | 0.00044 U  | 0.000217 U                  | 0.000111 U | 0.0011     | 0.00539    | 0.000417 U | 0.0004 U   | 0.0004 U   | 0.0004 U   | 0.0004 U   | 0.0004 U   | 0.0004 U   |
| PCB-113              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-114              | 0.0191     | 0.0425     | 0.00255     | 0.00224    | 0.00209                     | 0.0132     | 0.00298    | 0.0143     | 0.0171     | 0.00487    | 0.00487    | 0.00487    | 0.00487    | 0.00487    | 0.00487    |
| PCB-115              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-117              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-118              | 0.61 J     | 1.12 J     | 0.0789      | 0.0863     | 0.086                       | J          | 0.418 J    | 0.364 J    | 0.444 J    | 0.198 J    | 0.198 J    | 0.198 J    | 0.198 J    | 0.198 J    | 0.198 J    |
| PCB-119              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-120              | 0.00355    | 0.00631    | 0.000517    | 0.000521   | 0.000203 U                  | 0.000445   | 0.000217 U | 0.00114    | 0.00109    | 0.000994   | 0.000994   | 0.000994   | 0.000994   | 0.000994   | 0.000994   |
| PCB-121              | 0.000664 U | 0.00171    | 0.000352    | 0.000441 U | 0.000209 U                  | 0.000213   | 0.000226 U | 0.000607   | 0.000424 U | 0.000406 U | 0.000406 U | 0.000406 U | 0.000406 U | 0.000406 U | 0.000406 U |
| PCB-122              | 0.00836    | 0.0183     | 0.00128     | 0.000622 U | 0.000715 U                  | 0.00171    | 0.00169    | 0.0068     | 0.00612    | 0.00224    | 0.00224    | 0.00224    | 0.00224    | 0.00224    | 0.00224    |
| PCB-123              | 0.00795    | 0.0148     | 0.00152     | 0.00136    | 0.00183                     | 0.00691    | 0.00183    | 0.00693    | 0.0103     | 0.00243    | 0.00243    | 0.00243    | 0.00243    | 0.00243    | 0.00243    |
| PCB-124              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-125              | 0          | 0          | 0           | 0          | 0                           | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          |
| PCB-126              | 0.00185    | 0.000875 U | 0.000432 U  | 0.000654 U | 0.000275 U                  | 7.04E-05 U | 0.000416 U | 0.000791   | 0.000295 U | 0.000297 U | 0.000297 U | 0.000297 U | 0.000297 U | 0.000297 U | 0.000297 U |
| PCB-127              | 0.00139 U  | 0.00263    | 0.000371 U  | 0.000608 U | 0.000718 U                  | 0.000183 U | 0.0004 U   | 0.000605 U | 0.000534 U | 0.00038 U  | 0.00038 U  | 0.00038 U  | 0.00038 U  | 0.00038 U  | 0.00038 U  |
| PCB-128/166          | 0.0526     | 0.228      | 0.00809     | 0.00742    | 0.00957                     | 0.031      | 0.0117     | 0.0358     | 0.0475     | 0.0199     | 0.0199     | 0.0199     | 0.0199     | 0.0199     | 0.0199     |
| PCB-129/138/160/163  | 0.342 J    | 1.43       | 0.0488      | 0.0476     | 0.061                       | J          | 0.173 J    | 0.0649 J   | 0.24 J     | 0.116 J    | 0.116 J    | 0.116 J    | 0.116 J    | 0.116 J    | 0.116 J    |
| PCB-130              | 0.0252     | 0.0965     | 0.00344     | 0.00355    | 0.00429                     | 0.0126     | 0.00443    | 0.0135     | 0.018      | 0.00845    | 0.00845    | 0.00845    | 0.00845    | 0.00845    | 0.00845    |

Key at the end of Table

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte         | Sample ID  |            | Sample Date |            | Sample Depth Range (ft BGS) |          | R7-071-C   | R7-074-C    | R7-075-C   | R7-080-C   | R7-081-C   | R7-082-CR | R7-084-C   | R7-086-C | R7-087-C   |
|-----------------|------------|------------|-------------|------------|-----------------------------|----------|------------|-------------|------------|------------|------------|-----------|------------|----------|------------|
|                 | 11/25/2009 | 0-2.1      | 11/25/2009  | 0-1.5      | 0-2.3                       | 0-2.1    | 12/2/2009  | 0-1.7       | 12/2/2009  | 0-1.6      | 11/30/2009 | 0-3.3     | 11/30/2009 | 0-3.2    | 11/30/2009 |
| PCB-131         | 0.0044     | 0.0198     | 0.000785    | 0.00107 U  | 0.000748                    | U        | 0.00289    | 0.00857     | 0.00313    | 0.004      | 0.00151    |           |            |          |            |
| PCB-132         | 0.181 J    | 0.59       | 0.0216      | 0.0223     | 0.0246                      | J        | 0.0819 J   | 0.0281 J    | 0.0819 J   | 0.109 J    | 0.0571 J   |           |            |          |            |
| PCB-133         | 0.0124     | 0.033      | 0.00164     | 0.00185    | 0.00255                     | 0.00568  | 0.00165    | 0.00441     | 0.00509    | 0.00654    | 0.00441    |           |            |          |            |
| PCB-134/143     | 0.0283     | 0.0917     | 0.00376     | 0.00358    | 0.00413                     | 0.0166   | 0.0125     | 0.0188      | 0.00938    |            |            |           |            |          |            |
| PCB-135/151/154 | 0.156 J    | 0.653      | 0.02        | 0.023      | 0.0281                      | J        | 0.0828 J   | 0.0253 J    | 0.0639 J   | 0.0888 J   | 0.0541 J   |           |            |          |            |
| PCB-136         | 0.0569 J   | 0.235      | 0.00784     | 0.00891    | 0.00949                     | J        | 0.0335 J   | 0.00976 J   | 0.0258 J   | 0.0348 J   | 0.0201 J   |           |            |          |            |
| PCB-137         | 0.0266     | 0.109      | 0.00306     | 0.00214    | 0.00511                     | 0.0147   | 0.00431    | 0.0155      | 0.0205     | 0.00824    |            |           |            |          |            |
| PCB-138         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-139/140     | 0.011      | 0.0346     | 0.00136     | 0.00138    | 0.00194                     | 0.00498  | 0.00169    | 0.00516     | 0.00679    | 0.0037     |            |           |            |          |            |
| PCB-140         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-141         | 0.0371     | 0.268      | 0.00634     | 0.00609    | 0.00873                     | 0.0233   | 0.0094     | 0.0284      | 0.0366     | 0.0141     |            |           |            |          |            |
| PCB-142         | 0.00223 U  | 0.000696 U | 0.000479 U  | 0.00114 U  | 0.000778                    | U        | 0.00163 U  | 0.000705 U  | 0.000297 U | 0.00142 U  | 0.00096 U  |           |            |          |            |
| PCB-143         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-144         | 0.0109     | 0.075      | 0.00146     | 0.00161    | 0.00237                     | 0.00706  | 0.00258    | 0.00738     | 0.0096     | 0.00408    |            |           |            |          |            |
| PCB-145         | 0.000225 U | 0.00125    | 8.75E-05 U  | 0.000197 U | 0.000274                    | U        | 0.000229   | 0.0000778 U | 0.000228   | 0.000362   | 0.000241 U |           |            |          |            |
| PCB-146         | 0.0586     | 0.225      | 0.00782     | 0.00885    | 0.0101                      | 0.027    | 0.00911    | 0.025       | 0.0323     | 0.0195     |            |           |            |          |            |
| PCB-147/149     | 0.353 J    | 1.27       | 0.0459      | 0.0499     | 0.0607                      | J        | 0.184 J    | 0.0574 J    | 0.149 J    | 0.204 J    | 0.117 J    |           |            |          |            |
| PCB-148         | 0.00316    | 0.00703    | 0.000452    | 0.000569   | 0.00109                     | 0.0018   | 0.000442   | 0.00141     | 0.0017     | 0.00122    |            |           |            |          |            |
| PCB-149         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-150         | 0.00112    | 0.00398    | 0.000244    | 0.000298 J | 0.000568                    | 0.000971 | 0.000281   | 0.000676    | 0.00101    | 0.000677   |            |           |            |          |            |
| PCB-151         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-152         | 0.00129    | 0.00431    | 0.00027     | 0.000193 J | 0.000778                    | 0.000792 | 0.000182   | 0.000648    | 0.00105    | 0.000421   |            |           |            |          |            |
| PCB-153/168     | 0.252 J    | 1.2        | 0.0358      | 0.0365     | 0.0497                      | J        | 0.121 J    | 0.0474 J    | 0.126 J    | 0.161 J    | 0.0848 J   |           |            |          |            |
| PCB-154         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-155         | 0.000163 U | 0.00045    | 0.000119 J  | 0.000137 U | 0.000364                    | 0.000327 | 0.0000833  | 0.000538    | 0.000516   | 0.000148 U |            |           |            |          |            |
| PCB-156/157     | 0.0371     | 0.161      | 0.00608     | 0.00535    | 0.00401                     | 0.0171   | 0.00668    | 0.0249      | 0.0302     | 0.0118     |            |           |            |          |            |
| PCB-157         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-158         | 0.0325     | 0.151      | 0.00498     | 0.00467    | 0.00588                     | 0.0173   | 0.00658    | 0.0198      | 0.026      | 0.011      |            |           |            |          |            |
| PCB-159         | 0.00178    | 0.0206     | 0.000202 U  | 0.000348 U | 0.000402                    | U        | 0.000321 U | 0.000603    | 0.000374 U | 0.00032 U  |            |           |            |          |            |
| PCB-160         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-161         | 0.00153 U  | 0.000485 U | 0.000324 U  | 0.000768 U | 0.000537                    | U        | 0.00112 U  | 0.000499 U  | 0.00021 U  | 0.00101 U  | 0.000679 U |           |            |          |            |
| PCB-162         | 0.000761 U | 0.00732    | 0.000403    | 0.000341 U | 0.000405                    | U        | 0.000688   | 0.000268 U  | 0.00111    | 0.00121    | 0.000546   |           |            |          |            |
| PCB-163         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-164         | 0.0114     | 0.0724     | 0.00276     | 0.00336    | 0.00228                     | 0.00634  | 0.00365    | 0.00932     | 0.0111     | 0.00503    |            |           |            |          |            |
| PCB-165         | 0.0017 U   | 0.00251    | 0.000364 U  | 0.000863 U | 0.000603                    | U        | 0.00126 U  | 0.00054 U   | 0.00109 U  | 0.000735 U |            |           |            |          |            |
| PCB-166         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-167         | 0.0103     | 0.0512     | 0.00178     | 0.00174    | 0.00207                     | 0.00527  | 0.00219    | 0.00656     | 0.00868    | 0.00352    |            |           |            |          |            |
| PCB-168         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |
| PCB-169         | 0.000573 U | 0.00144 U  | 0.000186 U  | 0.000331 U | 0.000501                    | U        | 0.000317 U | 0.000218 U  | 0.000291 U | 0.000323 U | 0.000315 U |           |            |          |            |
| PCB-170         | 0.0499     | 0.321      | 0.0061      | 0.00749    | 0.0173                      | 0.0181   | 0.00959    | 0.0231      | 0.032      | 0.0168     |            |           |            |          |            |
| PCB-171/173     | 0.0183     | 0.111      | 0.0021      | 0.00256    | 0.00674                     | 0.00698  | 0.0033     | 0.0084      | 0.0113     | 0.00591    |            |           |            |          |            |
| PCB-172         | 0.0106     | 0.0625     | 0.00106     | 0.00138    | 0.00434                     | 0.00371  | 0.00187    | 0.00455     | 0.00644    | 0.0028     |            |           |            |          |            |
| PCB-173         | 0          | 0          | 0           | 0          | 0                           | 0        | 0          | 0           | 0          | 0          |            |           |            |          |            |

Key at the end of Table

Table 4-8a  
Summary of Results of PCB Congener Analysis

| Sample ID           |            | Sample Date |            | Sample Depth Range (ft BGS) |          | R7-071-C   | R7-074-C   | R7-075-C    | R7-080-C    | R7-081-C   | R7-082-CR  | R7-084-C   | R7-086-C   | R7-087-C   |
|---------------------|------------|-------------|------------|-----------------------------|----------|------------|------------|-------------|-------------|------------|------------|------------|------------|------------|
|                     |            |             |            |                             |          | 11/25/2009 | 11/24/2009 | 11/24/2009  | 12/2/2009   | 12/2/2009  | 11/30/2009 | 11/30/2009 | 11/30/2009 | 11/30/2009 |
|                     |            |             |            |                             |          | 0-1.5      | 0-2.3      | 0-2.1       | 0-1.7       | 0-1.7      | 0-1.6      | 0-3.3      | 0-3.2      | 0-2.1      |
| Analyte             |            |             |            |                             |          |            |            |             |             |            |            |            |            |            |
| PCB-174             | 0.0646 J   | 0.465       | 0.0069     | 0.00801                     | 0.0297   | J          | 0.0243 J   | 0.0121 J    | 0.0283 J    | 0.0423 J   | 0.02 J     |            |            |            |
| PCB-175             | 0.00336    | 0.0199      | 0.000362   | 0.000717 U                  | 0.00165  |            | 0.00124    | 0.000132 U  | 0.00146     | 0.002      | 0.000992   |            |            |            |
| PCB-176             | 0.00973    | 0.0659      | 0.000981   | 0.00142                     | 0.00421  |            | 0.00389    | 0.00172     | 0.00426     | 0.00623    | 0.00316    |            |            |            |
| PCB-177             | 0.0436     | 0.254       | 0.00501    | 0.00619                     | 0.0184   |            | 0.0165     | 0.00742     | 0.0196      | 0.0267     | 0.0149     |            |            |            |
| PCB-178             | 0.021      | 0.116       | 0.00241    | 0.00305                     | 0.00956  |            | 0.00988    | 0.0036      | 0.00933     | 0.0124     | 0.00816    |            |            |            |
| PCB-179             | 0.0345 J   | 0.239       | 0.00389    | 0.00499                     | 0.017    | J          | 0.0157 J   | 0.00623 J   | 0.0153 J    | 0.0234 J   | 0.0127 J   |            |            |            |
| PCB-180/193         | 0.13 J     | 0.796       | 0.0133     | 0.016                       | 0.0583   | J          | 0.0429 J   | 0.0224 J    | 0.0508 J    | 0.0787 J   | 0.0359 J   |            |            |            |
| PCB-181             | 0.00102 U  | 0.00237     | 0.000355 U | 0.000698 U                  | 0.000713 |            | 0.000352 U | 0.00042 U   | 0.000418    | 0.000284 U | 0.000858 U |            |            |            |
| PCB-182             | 0.000428 U | 0.0016      | 0.000247 U | 0.000706 U                  | 0.000562 | U          | 0.000195 U | 0.000131 U  | 0.000124 U  | 0.000307 U | 0.000247   |            |            |            |
| PCB-183/185         | 0.0487     | 0.284       | 0.0045     | 0.00557                     | 0.0218   |            | 0.0162     | 0.00794     | 0.0183      | 0.0286     | 0.0129     |            |            |            |
| PCB-184             | 0.000323 U | 0.000226    | 0.000187 U | 0.000536 U                  | 0.000414 | U          | 0.000144 U | 0.0000973 U | 0.0000918 U | 0.000228 U | 0.000145 U |            |            |            |
| PCB-185             | 0          | 0           | 0          | 0                           | 0        |            | 0          | 0           | 0           | 0          | 0          |            |            |            |
| PCB-186             | 0.000356 U | 0.000145    | 0.000199 U | 0.000569 U                  | 0.00045  | U          | 0.000156 U | 0.000105 U  | 0.0000988 U | 0.000245 U | 0.000156 U |            |            |            |
| PCB-187             | 0.102 J    | 0.636       | 0.0117     | 0.015                       | 0.053    | J          | 0.046 J    | 0.0184 J    | 0.0436 J    | 0.0658 J   | 0.0357 J   |            |            |            |
| PCB-188             | 0.000393 U | 0.000682    | 0.000208 U | 0.000611 U                  | 0.000484 | U          | 0.000342   | 0.000102 U  | 0.000237    | 0.000231 U | 0.000203   |            |            |            |
| PCB-189             | 0.00177    | 0.00961     | 0.000247   | 0.000305                    | 0.000475 |            | 0.000677   | 0.0004      | 0.000823    | 0.0119     | 0.000753   |            |            |            |
| PCB-190             | 0.0124     | 0.0706      | 0.00119    | 0.00164                     | 0.00478  |            | 0.00427    | 0.00218     | 0.00511     | 0.00742    | 0.00353    |            |            |            |
| PCB-191             | 0.00208    | 0.0119      | 0.000274 U | 0.000539 U                  | 0.000925 |            | 0.000831   | 0.00042     | 0.00104     | 0.00146    | 0.000676 U |            |            |            |
| PCB-192             | 0.000869 U | 0.000246 U  | 0.000304 U | 0.000597 U                  | 0.000591 | U          | 0.000305 U | 0.000355 U  | 0.000291 U  | 0.00024 U  | 0.000725 U |            |            |            |
| PCB-193             | 0          | 0           | 0          | 0                           | 0        |            | 0          | 0           | 0           | 0          | 0          |            |            |            |
| PCB-194             | 0.0511     | 0.271       | 0.00371    | 0.00444                     | 0.0252   |            | 0.0117     | 0.00751     | 0.0135      | 0.0267     | 0.0103     |            |            |            |
| PCB-195             | 0.0184     | 0.0995      | 0.00133    | 0.00146                     | 0.0087   |            | 0.00402    | 0.00239     | 0.00508     | 0.00973    | 0.00375    |            |            |            |
| PCB-196             | 0.0336     | 0.168       | 0.00203    | 0.00247                     | 0.0169   |            | 0.00723    | 0.00446     | 0.00806     | 0.0157     | 0.00604    |            |            |            |
| PCB-197/200         | 0.00971    | 0.0595      | 0.000771   | 0.000924                    | 0.00559  |            | 0.00264    | 0.00142     | 0.00317     | 0.00601    | 0.00217    |            |            |            |
| PCB-198/199         | 0.0648     | 0.389       | 0.00593    | 0.00641                     | 0.0423   |            | 0.000257 U | 0.0145      | 0.0209      | 0.0422     | 0.0161     |            |            |            |
| PCB-199             | 0          | 0           | 0          | 0                           | 0        |            | 0          | 0           | 0           | 0          | 0          |            |            |            |
| PCB-200             | 0          | 0           | 0          | 0                           | 0        |            | 0          | 0           | 0           | 0          | 0          |            |            |            |
| PCB-201             | 0.00885    | 0.0536      | 0.000713   | 0.00081                     | 0.00542  |            | 0.00254    | 0.00139     | 0.00305     | 0.0058     | 0.00217    |            |            |            |
| PCB-202             | 0.014      | 0.0771      | 0.00154    | 0.00164                     | 0.00866  |            | 0.0051     | 0.00364     | 0.00505     | 0.00963    | 0.0041     |            |            |            |
| PCB-203             | 0.0355     | 0.197       | 0.00319    | 0.0038                      | 0.0214   |            | 0.011      | 0.00692     | 0.0111      | 0.0236     | 0.00825    |            |            |            |
| PCB-204             | 0.00027 U  | 0.0000619 U | 0.000168 U | 0.00021 U                   | 0.000315 | U          | 0.000173 U | 0.000202 U  | 0.000256 U  | 0.000119 U | 0.000249 U |            |            |            |
| PCB-205             | 0.00289    | 0.0121      | 0.000228   | 0.000283 U                  | 0.0013   |            | 0.000639   | 0.000402    | 0.000633    | 0.00136    | 0.000486   |            |            |            |
| PCB-206             | 0.0481     | 0.0674      | 0.00786    | 0.00595                     | 0.0334   |            | 0.0219     | 0.0358      | 0.0114      | 0.0237     | 0.0135     |            |            |            |
| PCB-207             | 0.00583    | 0.0131      | 0.000656   | 0.000697                    | 0.00399  |            | 0.00265    | 0.00256     | 0.00161     | 0.00308    | 0.00144    |            |            |            |
| PCB-208             | 0.0222     | 0.0263      | 0.00331    | 0.00227                     | 0.0144   |            | 0.00951    | 0.0174      | 0.00527     | 0.00922    | 0.00548    |            |            |            |
| PCB-209             | 0.135      | 0.0231      | 0.0123     | 0.0166                      | 0.0547   |            | 0.0376     | 0.0722      | 0.0235      | 0.0228     | 0.033      |            |            |            |
| TOTAL PCB CONGENERS | 58         | 44          | 6.2        | 8.1                         | 4.9      |            | 49         | 5.8         | 17          | 22         | 14         |            |            |            |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                            | Sample ID                   |            |            |            |             |            |             |             |            |             |             |  |
|------------------------------------|-----------------------------|------------|------------|------------|-------------|------------|-------------|-------------|------------|-------------|-------------|--|
|                                    | Sample Date                 |            |            |            |             |            |             |             |            |             |             |  |
|                                    | Sample Depth Range (ft BGS) |            |            |            |             |            |             |             |            |             |             |  |
|                                    | R7-088-C                    | R7-089-C   | R7-091-C   | R7-094-C   | R7-099-C    | R7-100-C   | R7-101-C    | R7-103-C    | R7-104-C   | R7-106-C    | R7-131-H    |  |
|                                    | 11/25/2009                  | 11/25/2009 | 11/24/2009 | 11/23/2009 | 11/23/2009  | 11/23/2009 | 11/30/2009  | 11/30/2009  | 12/2/2009  | 11/30/2009  | 11/30/2009  |  |
|                                    | 0-1                         | 0-2.9      | 0-1.4      | 0-1        | 0-1.3       | 0-1.2      | 0-0.5       | 0-2.3       | 0-1        | 0-0.5       | 0-0.5       |  |
| PCB Congeners by HRGC/HRMS (mg/kg) |                             |            |            |            |             |            |             |             |            |             |             |  |
| PCB-1                              | 0.0644 J                    | 1.58 J     | 0.233      | 0.05 J     | 0.0468      | 0.0415 J   | 0.267 J     | 0.256 J     | 0.305 J    | 0.0916 J    | 0.0959 J    |  |
| PCB-2                              | 0.00177 J                   | 0.0558 J   | 0.0059     | 0.00471    | 0.00109     | 0.00196    | 0.0186 J    | 0.00587 J   | 0.0111 J   | 0.00335 J   | 0.00516 J   |  |
| PCB-3                              | 0.02 J                      | 0.596 J    | 0.0554     | 0.0235 J   | 0.013       | 0.0178 J   | 0.148 J     | 0.0661 J    | 0.141 J    | 0.0434 J    | 0.0459 J    |  |
| PCB-4                              | 0.837 J                     | 3.24 J     | 1.59       | 0.111 J    | 0.317       | 0.214 J    | 0.542 J     | 1.53 J      | 1.28 J     | 0.407 J     | 0.143 J     |  |
| PCB-5                              | 0.0103 J                    | 0.0604 J   | 0.0152     | 0.00663    | 0.00204     | 0.00423    | 0.0176 J    | 0.0336 J    | 0.0249 J   | 0.00664 J   | 0.00488 J   |  |
| PCB-6                              | 0.293 J                     | 1.22 J     | 0.265      | 0.0785 J   | 0.0853      | 0.0618 J   | 0.297 J     | 0.413 J     | 0.262 J    | 0.135 J     | 0.0954 J    |  |
| PCB-7                              | 0.0307 J                    | 0.147 J    | 0.0273     | 0.00908    | 0.0083      | 0.0103     | 0.0484 J    | 0.122 J     | 0.0426 J   | 0.0178 J    | 0.0154 J    |  |
| PCB-8                              | 0.166 J                     | 1.38 J     | 0.419      | 0.0769 J   | 0.081       | 0.0813 J   | 0.298 J     | 0.422 J     | 0.448 J    | 0.184 J     | 0.133 J     |  |
| PCB-9                              | 0.0773 J                    | 0.169 J    | 0.0278     | 0.0113 J   | 0.0148      | 0.0145 J   | 0.0606 J    | 0.15 J      | 0.0459 J   | 0.0282 J    | 0.0183 J    |  |
| PCB-10                             | 0.0216                      | 0.0988     | 0.0539     | 0.00201    | 0.00677     | 0.00337    | 0.00988     | 0.0216      | 0.0269     | 0.00818     | 0.00193     |  |
| PCB-11                             | 0.0196 J                    | 0.13 J     | 0.0207     | 0.0089 J   | 0.00845     | 0.00647 J  | 0.0409 J    | 0.0584 J    | 0.0317 J   | 0.0145 J    | 0.00989 J   |  |
| PCB-12/13                          | 0.128 J                     | 0.61 J     | 0.119      | 0.0279     | 0.0599      | 0.0345     | 0.166 J     | 0.146 J     | 0.159 J    | 0.0813 J    | 0.0466 J    |  |
| PCB-13                             | 0                           | 0          | 0          | 0          | 0           | 0          | 0           | 0           | 0          | 0           | 0           |  |
| PCB-14                             | 0.0004                      | 0.0006     | 0.00022 J  | 0.0000293  | 0.0000789 U | 0.0000295  | 0.0000364 U | 0.0000882 U | 0.000704   | 0.0000439 U | 0.0000398 U |  |
| PCB-15                             | 0.254 J                     | 1.5 J      | 0.214      | 0.0679 J   | 0.0831      | 0.0733 J   | 0.517 J     | 0.547 J     | 0.402 J    | 0.294 J     | 0.204 J     |  |
| PCB-16                             | 0.121 J                     | 0.234 J    | 0.0568     | 0.0372 J   | 0.0222      | 0.0162 J   | 0.0729 J    | 0.172 J     | 0.0656 J   | 0.0583 J    | 0.0283 J    |  |
| PCB-17                             | 0.62 J                      | 2.73 J     | 1.18       | 0.168 J    | 0.3         | 0.146 J    | 0.468 J     | 1.26 J      | 0.743 J    | 0.37 J      | 0.096 J     |  |
| PCB-18/30                          | 0.65 J                      | 1.49 J     | 0.457      | 0.185 J    | 0.161       | 0.0939 J   | 0.377 J     | 0.981 J     | 0.319 J    | 0.347 J     | 0.139 J     |  |
| PCB-19                             | 0.288 J                     | 1.38 J     | 0.721      | 0.0526 J   | 0.142       | 0.0591 J   | 0.119 J     | 0.518 J     | 0.501 J    | 0.141 J     | 0.0198 J    |  |
| PCB-20/28                          | 0.601 J                     | 1.87 J     | 0.396      | 0.279 J    | 0.184       | 0.139 J    | 0.683 J     | 1.09 J      | 0.731 J    | 0.566 J     | 0.371 J     |  |
| PCB-21/33                          | 0.0849 J                    | 0.182 J    | 0.0266     | 0.0319 J   | 0.0143      | 0.0142 J   | 0.0667 J    | 0.081 J     | 0.0607 J   | 0.0558 J    | 0.0461 J    |  |
| PCB-22                             | 0.163 J                     | 0.391 J    | 0.0703     | 0.0574 J   | 0.0312      | 0.0258 J   | 0.143 J     | 0.153 J     | 0.131 J    | 0.119 J     | 0.0858 J    |  |
| PCB-23                             | 0.00082                     | 0.0013     | 0.00045    | 0.000148   | 0.000142 U  | 0.0000982  | 0.00047     | 0.00135     | 0.000794   | 0.000467    | 0.0000998   |  |
| PCB-24                             | 0.00507                     | 0.0002 U   | 0.00026 U  | 0.000994   | 0.000811    | 0.000588   | 0.000142 U  | 0.000228 U  | 0.000106 U | 0.0000994 U | 0.000653    |  |
| PCB-25                             | 0.454 J                     | 1.15 J     | 0.311      | 0.13       | 0.13        | 0.0681     | 0.406 J     | 0.719 J     | 0.251 J    | 0.177 J     | 0.0755 J    |  |
| PCB-26/29                          | 1.12 J                      | 2.18 J     | 0.691      | 0.229 J    | 0.23        | 0.127 J    | 0.673 J     | 1.37 J      | 0.449 J    | 0.356 J     | 0.136 J     |  |
| PCB-27                             | 0.22 J                      | 0.95 J     | 0.393      | 0.0467     | 0.103       | 0.0424     | 0.129 J     | 0.353 J     | 0.217 J    | 0.131 J     | 0.0246 J    |  |
| PCB-28                             | 0                           | 0          | 0          | 0          | 0           | 0          | 0           | 0           | 0          | 0           | 0           |  |
| PCB-30                             | 0                           | 0          | 0          | 0          | 0           | 0          | 0           | 0           | 0          | 0           | 0           |  |
| PCB-31                             | 0.717 J                     | 2.56 J     | 0.699      | 0.306 J    | 0.262       | 0.171 J    | 0.859 J     | 1.23 J      | 0.74 J     | 0.612 J     | 0.4 J       |  |
| PCB-32                             | 0.24 J                      | 1.58 J     | 0.632      | 0.0963 J   | 0.163       | 0.0748 J   | 0.241 J     | 0.628 J     | 0.425 J    | 0.288 J     | 0.0778 J    |  |
| PCB-33                             | 0                           | 0          | 0          | 0          | 0           | 0          | 0           | 0           | 0          | 0           | 0           |  |
| PCB-34                             | 0.0138                      | 0.0682     | 0.0235     | 0.00489    | 0.006       | 0.00318    | 0.0131      | 0.0253      | 0.0132     | 0.00794     | 0.00209     |  |
| PCB-35                             | 0.00675 J                   | 0.0163 J   | 0.00266    | 0.00197    | 0.00127     | 0.000991   | 0.00583 J   | 0.0058 J    | 0.00511 J  | 0.00245 J   | 0.00213 J   |  |
| PCB-36                             | 0.0116                      | 0.0061     | 0.0017     | 0.000446   | 0.000654    | 0.000427   | 0.00378     | 0.00237     | 0.00192    | 0.000126 U  | 0.000174 U  |  |
| PCB-37                             | 0.108 J                     | 0.239 J    | 0.0368     | 0.0271 J   | 0.0189      | 0.016 J    | 0.0834 J    | 0.118 J     | 0.106 J    | 0.0749 J    | 0.074 J     |  |
| PCB-38                             | 0.00044 U                   | 0.0012     | 0.00034 U  | 0.000221   | 0.000266 U  | 0.000147   | 0.000187 U  | 0.00118     | 0.00017 U  | 0.00012 U   | 0.000442    |  |
| PCB-39                             | 0.00676                     | 0.0187     | 0.00034 U  | 0.00188    | 0.00242     | 0.00118    | 0.000181 U  | 0.00662     | 0.000164 U | 0.000115 U  | 0.00302     |  |
| PCB-40/41/71                       | 0.277 J                     | 1.12 J     | 0.413      | 0.168      | 0.187       | 0.107      | 0.384 J     | 1.07 J      | 0.62 J     | 0.432 J     | 0.000316 U  |  |
| PCB-41                             | 0                           | 0          | 0          | 0          | 0           | 0          | 0           | 0           | 0          | 0           | 0           |  |
| PCB-42                             | 0.192 J                     | 0.5 J      | 0.177      | 0.0884     | 0.0905      | 0.0533     | 0.204 J     | 0.551 J     | 0.257 J    | 0.206 J     | 0.222 J     |  |
| PCB-43                             | 0.0242                      | 0.113      | 0.0378     | 0.0149     | 0.0167      | 0.00876    | 0.0369      | 0.0845      | 0.0423     | 0.0341      | 0.0279      |  |

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Table 4-8a  
Summary of Results of PCB Congener Analysis

| Analyte                  | Sample ID   |                             | Sample Date |       | Sample Depth |            | Range (ft BGS) |            | R7-088-C   | R7-089-C   | R7-091-C   | R7-094-C  | R7-099-C   | R7-100-C | R7-101-C   | R7-103-C | R7-104-C  | R7-106-C   | R7-131-H |
|--------------------------|-------------|-----------------------------|-------------|-------|--------------|------------|----------------|------------|------------|------------|------------|-----------|------------|----------|------------|----------|-----------|------------|----------|
|                          | 11/25/2009  | 0-1                         | 11/25/2009  | 0-2.9 | 11/24/2009   | 0-1.4      | 11/23/2009     | 0-1        | 11/23/2009 | 0-1.3      | 11/23/2009 | 0-1.2     | 11/30/2009 | 0-0.5    | 11/30/2009 | 0-2.3    | 12/2/2009 | 11/30/2009 | 0-0.5    |
|                          | Sample Date | Sample Depth Range (ft BGS) |             |       |              |            |                |            |            |            |            |           |            |          |            |          |           |            |          |
| PCB-44/47/65             | 0.913 J     | 2.58 J                      | 0.922       |       | 0.371 J      | 0.449      | 0.294 J        | 0.987 J    | 2.29 J     | 1.29 J     | 0.924 J    | 0.958 J   |            |          |            |          |           |            |          |
| PCB-45/51                | 0.142 J     | 0.902 J                     | 0.395       |       | 0.0798       | 0.133      | 0.0711         | 0.225 J    | 0.632 J    | 0.316 J    | 0.215 J    | 0.152 J   |            |          |            |          |           |            |          |
| PCB-46                   | 0.0385 J    | 0.189 J                     | 0.0745      |       | 0.023        | 0.0314     | 0.0124         | 0.0473 J   | 0.198 J    | 0.0797 J   | 0.0602 J   | 0.0378 J  |            |          |            |          |           |            |          |
| PCB-47                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-48                   | 0.0332 J    | 0.144 J                     | 0.039       |       | 0.0325       | 0.0293     | 0.0208         | 0.0736 J   | 0.0999 J   | 0.144 J    | 0.114 J    | 0.133 J   |            |          |            |          |           |            |          |
| PCB-49/69                | 1 J         | 1.75 J                      | 0.732       |       | 0.269 J      | 0.337      | 0.192 J        | 0.671 J    | 1.56 J     | 0.809 J    | 0.644 J    | 0.663 J   |            |          |            |          |           |            |          |
| PCB-50/53                | 0.218 J     | 0.761 J                     | 0.332       |       | 0.0777       | 0.133      | 0.058          | 0.183 J    | 0.631 J    | 0.301 J    | 0.23 J     | 0.145 J   |            |          |            |          |           |            |          |
| PCB-51                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-52                   | 1.76 J      | 2.84 J                      | 1.1         |       | 0.442 J      | 0.531      | 0.42 J         | 1.07 J     | 2.71 J     | 1.34 J     | 0.974 J    | 1.16 J    |            |          |            |          |           |            |          |
| PCB-53                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-54                   | 0.0157      | 0.0835                      | 0.0392      |       | 0.00396      | 0.0109     | 0.0074         | 0.0106     | 0.0237     | 0.0319     | 0.0105     | 0.00281   |            |          |            |          |           |            |          |
| PCB-55                   | 0.00297 J   | 0.0117 J                    | 0.00081 U   |       | 0.00249      | 0.00231    | 0.00175        | 0.00079 U  | 0.00946 J  | 0.000463 U | 0.000468 U | 0.0106 J  |            |          |            |          |           |            |          |
| PCB-56                   | 0.0957 J    | 0.333 J                     | 0.0829      |       | 0.0822       | 0.0772     | 0.0736         | 0.176 J    | 0.221 J    | 0.393 J    | 0.293 J    | 0.449 J   |            |          |            |          |           |            |          |
| PCB-57                   | 0.0369      | 0.0388                      | 0.0145      |       | 0.00536      | 0.00594    | 0.0034         | 0.0226     | 0.0381     | 0.0162     | 0.00608    | 0.00407   |            |          |            |          |           |            |          |
| PCB-58                   | 0.00635     | 0.0077                      | 0.00303     |       | 0.00148      | 0.00161    | 0.00134        | 0.00875    | 0.0098     | 0.00518    | 0.00188    | 0.00314   |            |          |            |          |           |            |          |
| PCB-59/62/75             | 0.0672      | 0.194                       | 0.0589      |       | 0.0294       | 0.0304     | 0.0173         | 0.0944     | 0.168      | 0.0906     | 0.0703     | 0.0664    |            |          |            |          |           |            |          |
| PCB-60                   | 0.00707 J   | 0.127 J                     | 0.0262      |       | 0.0259       | 0.0269     | 0.0285         | 0.0551 J   | 0.0496 J   | 0.182 J    | 0.137 J    | 0.204 J   |            |          |            |          |           |            |          |
| PCB-61/70/74/76          | 0.533 J     | 1.28 J                      | 0.364       |       | 0.303        | 0.285      | 0.378          | 0.674 J    | 0.885 J    | 1.27 J     | 0.892 J    | 1.41 J    |            |          |            |          |           |            |          |
| PCB-62                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-63                   | 0.0352      | 0.104                       | 0.0324      |       | 0.0158       | 0.0169     | 0.0113         | 0.0607     | 0.0637     | 0.0483     | 0.0328     | 0.0344    |            |          |            |          |           |            |          |
| PCB-64                   | 0.2 J       | 0.656 J                     | 0.198       |       | 0.125 J      | 0.122      | 0.0877 J       | 0.341 J    | 0.62 J     | 0.444 J    | 0.333 J    | 0.445 J   |            |          |            |          |           |            |          |
| PCB-65                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-66                   | 0.354       | 0.777                       | 0.21        |       | 0.189 J      | 0.184      | 0.186 J        | 0.475      | 0.713      | 0.875      | 0.599      | 0.929     |            |          |            |          |           |            |          |
| PCB-67                   | 0.0337      | 0.0422                      | 0.014       |       | 0.00825      | 0.00783    | 0.00539        | 0.0328     | 0.0326     | 0.0224     | 0.0152     | 0.0169    |            |          |            |          |           |            |          |
| PCB-68                   | 0.0311      | 0.0491                      | 0.0218      |       | 0.0054       | 0.00853    | 0.00392        | 0.026      | 0.0264     | 0.0212     | 0.00883    | 0.00549   |            |          |            |          |           |            |          |
| PCB-69                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-70                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-71                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-72                   | 0.0654      | 0.0712                      | 0.0274      |       | 0.00802      | 0.011      | 0.00635        | 0.0389     | 0.0449     | 0.0268     | 0.0123     | 0.0108    |            |          |            |          |           |            |          |
| PCB-73                   | 0.0179      | 0.0509                      | 0.0237      |       | 0.0029       | 0.00752    | 0.00353        | 0.00979    | 0.0241     | 0.0143     | 0.0107     | 0.00621   |            |          |            |          |           |            |          |
| PCB-74                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-75                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-76                   | 0           | 0                           | 0           |       | 0            | 0          | 0              | 0          | 0          | 0          | 0          | 0         |            |          |            |          |           |            |          |
| PCB-77                   | 0.0107 J    | 0.074 J                     | 0.0183      |       | 0.0121       | 0.0119     | 0.00964        | 0.0481 J   | 0.0664 J   | 0.0707 J   | 0.0395 J   | 0.0709 J  |            |          |            |          |           |            |          |
| PCB-78                   | 0.00152 U   | 0.0007 U                    | 0.00084 U   |       | 0.000142 U   | 0.000678 U | 0.000188 U     | 0.000763 U | 0.00121 U  | 0.000452 U | 0.000463 U | 0.00123 U |            |          |            |          |           |            |          |
| PCB-79                   | 0.0109      | 0.0077                      | 0.00069 U   |       | 0.00166      | 0.00229    | 0.00393        | 0.000616 U | 0.0108     | 0.000365 U | 0.000377 U | 0.00818   |            |          |            |          |           |            |          |
| PCB-80                   | 0.00127 U   | 0.0068                      | 0.00279     |       | 0.00119      | 0.000567 U | 0.000159 U     | 0.00765    | 0.00102 U  | 0.00485    | 0.00187    | 0.00103 U |            |          |            |          |           |            |          |
| PCB-81                   | 0.0013 U    | 0.0017                      | 0.00088 U   |       | 0.000254     | 0.000614 U | 0.000323       | 0.0009     | 0.0016     | 0.00326    | 0.00119    | 0.00215   |            |          |            |          |           |            |          |
| PCB-82                   | 0.026       | 0.101                       | 0.0319      |       | 0.0207       | 0.0249     | 0.0649         | 0.0755     | 0.135      | 0.0874     | 0.0436     | 0.124     |            |          |            |          |           |            |          |
| PCB-83/99                | 0.0374      | 0.0673                      | 0.025       |       | 0.0108       | 0.0121     | 0.0302         | 0.0624     | 0.0827     | 0.0243     | 0.0136     | 0.0444    |            |          |            |          |           |            |          |
| PCB-84                   | 0.276 J     | 0.325 J                     | 0.136       |       | 0.0666       | 0.0769     | 0.155          | 0.227 J    | 0.418 J    | 0.184 J    | 0.0801 J   | 0.216 J   |            |          |            |          |           |            |          |
| PCB-85/116/117           | 0.0343 J    | 0.166 J                     | 0.0616      |       | 0.0309       | 0.0406     | 0.0936         | 0.136 J    | 0.175 J    | 0.141 J    | 0.0631 J   | 0.19 J    |            |          |            |          |           |            |          |
| PCB-86/87/97/108/119/125 | 0.267 J     | 0.507 J                     | 0.165       |       | 0.0999       | 0.117      | 0.378          | 0.453 J    | 0.591 J    | 0.367 J    | 0.177 J    | 0.529 J   |            |          |            |          |           |            |          |

Key at the end of Table

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Table 4-8a  
Summary of Results of PCB Congener Analysis

Key:

- C = Hand-core creek location/sample.
- Comp = Hand-core creek composite sample.
- CR= Hand-core creek duplicate sample.
- ft = Feet.
- H = Historical channel location/sample.
- HM = High Moisture Content.
- J = Estimated at the concentration listed.
- mg/Kg = Milligrams per kilogram.
- P = Ponar creek location/sample.
- PCB = Polychlorinated biphenyl.
- T = Tributary location/sample.
- U = Non-detect.
- UM = Not detected/High Moisture Content.
- V = Vibracore creek location/sample.
- VR = Vibracore creek duplicate sample.
- W = Wetland location/sample.
- Z = Sample depth interval consecutively numbered.

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location                                | Sample ID     | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|-----------------------------------------|---------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 2 | R2-001-V-P,<br>R2-001-V-P2,<br>R2-001-V | R2-001-V-Z1P  | 05/18/10    | 0 - 1               | --                                       | 0.39                             |
|         |                                         | R2-001-V-Z1P2 | 05/24/10    | 0 - 1               | 1.95 HM                                  | --                               |
|         |                                         | R2-001-V-Z1a  | 05/18/10    | 0 - 0.5             | --                                       | 0.48                             |
|         |                                         | R2-001-V-Z1b  | 05/18/10    | 0.5 - 1             | --                                       | 0.41 J                           |
|         |                                         | R2-001-V-Z2   | 05/18/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |                                         | R2-001-V-Z3   | 05/18/10    | 2 - 3               | --                                       | 2.5                              |
|         |                                         | R2-001-V-Z4   | 05/18/10    | 3 - 4               | --                                       | 0.064 J                          |
|         |                                         | R2-001-V-Z5   | 05/18/10    | 4 - 5               | --                                       | 0.0099 J                         |
|         | R2-002-V-P,<br>R2-002-V                 | R2-001-V-Z6   | 05/18/10    | 6 - 7               | --                                       | 0.012 J                          |
|         |                                         | R2-002-V-Z1P  | 05/18/10    | 0 - 1               | 2.42 HM                                  | 0.28 J                           |
|         |                                         | R2-002-V-Z1   | 05/18/10    | 0 - 1               | --                                       | 0.42                             |
|         |                                         | R2-002-V-Z2   | 05/18/10    | 1 - 2               | --                                       | 0.38 J                           |
|         |                                         | R2-002-V-Z3   | 05/18/10    | 2 - 3               | --                                       | 0.71                             |
|         |                                         | R2-002-V-Z4   | 05/18/10    | 3 - 4               | --                                       | 1                                |
|         |                                         | R2-002-V-Z5   | 05/18/10    | 4 - 6               | --                                       | 0.012 J                          |
|         |                                         | R2-002-VZ     | 05/18/10    | 4 - 6               | --                                       | 0.18 J                           |
|         | R2-003-V-P,<br>R2-003-V-P2,<br>R2-003-V | R2-002-V-Z6   | 05/18/10    | 6 - 7.5             | --                                       | 0.011 U                          |
|         |                                         | R2-003-V-Z1P  | 05/18/10    | 0 - 1               | --                                       | 0.1 J                            |
|         |                                         | R2-003-V-Z1P2 | 05/24/10    | 0 - 1               | 1.85 HM                                  | --                               |
|         |                                         | R2-003-V-Z1   | 05/18/10    | 0 - 1               | --                                       | 0.13 J                           |
|         |                                         | R2-003-V-Z2   | 05/18/10    | 1 - 2               | --                                       | 0.51                             |
|         |                                         | R2-003-V-Z3   | 05/18/10    | 2 - 3               | --                                       | 4.3 J                            |
|         |                                         | R2-003-V-Z4   | 05/18/10    | 3 - 4               | --                                       | 0.85 J                           |
|         |                                         | R2-003-V-Z5   | 05/18/10    | 4 - 5               | --                                       | 0.19 J                           |
|         | R2-004-V-P,<br>R2-004-V-P2,<br>R2-004-V | R2-003-V-Z6   | 05/18/10    | 6 - 7               | --                                       | 0.012 J                          |
|         |                                         | R2-004-V-Z1P  | 05/18/10    | 0 - 1               | --                                       | 0.4 J                            |
|         |                                         | R2-004-V-Z1P2 | 05/24/10    | 0 - 1               | 1.76                                     | --                               |
|         |                                         | R2-004-V-Z1   | 05/18/10    | 0 - 1               | --                                       | 0.67 J                           |
|         |                                         | R2-004-V-Z2   | 05/18/10    | 1 - 2               | --                                       | 0.47 J                           |
|         |                                         | R2-004-VZ     | 05/18/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |                                         | R2-004-V-Z3   | 05/18/10    | 2 - 3               | --                                       | 2.9 J                            |
|         |                                         | R2-004-V-Z4   | 05/18/10    | 3 - 3.5             | --                                       | 0.8 J                            |
|         | R2-005-V-P,<br>R2-005-V                 | R2-004-V-Z5   | 05/18/10    | 4.5 - 5             | --                                       | 0.009 J                          |
|         |                                         | R2-005-V-Z1P  | 05/19/10    | 0 - 1               | 1.67                                     | 0.26 J                           |
|         |                                         | R2-005-V-Z1   | 05/19/10    | 0 - 1               | --                                       | 0.35 J                           |
|         |                                         | R2-005-V-Z2   | 05/19/10    | 1 - 2               | --                                       | 0.47                             |
|         |                                         | R2-005-V-Z3   | 05/19/10    | 2 - 3               | --                                       | 7.3 J                            |
|         |                                         | R2-005-V-Z4   | 05/19/10    | 3 - 4               | 12.8                                     | 3 J                              |
|         |                                         | R2-005-V-Z5   | 05/19/10    | 4 - 6               | --                                       | 0.095 J                          |
|         |                                         | R2-005-V-Z6   | 05/19/10    | 6 - 7               | --                                       | 0.062 J                          |
|         | R2-006-V-P,<br>R2-006-V                 | R2-006-V-Z1P  | 05/19/10    | 0 - 1               | --                                       | 0.13 J                           |
|         |                                         | R2-006-V-Z1P2 | 05/24/10    | 0 - 1               | 1.42 HM                                  | --                               |
|         |                                         | R2-006-V-Z1   | 05/19/10    | 0 - 1               | --                                       | 0.15 J                           |
|         |                                         | R2-006-V-Z2   | 05/19/10    | 1 - 2               | --                                       | 0.23 J                           |
|         |                                         | R2-006-V-Z3   | 05/19/10    | 2 - 3               | --                                       | 6.3 J                            |
|         |                                         | R2-006-VZ     | 05/19/10    | 2 - 3               | --                                       | 3.1 J                            |
|         |                                         | R2-006-V-Z4   | 05/19/10    | 3 - 4               | --                                       | 0.53 J                           |
|         |                                         | R2-006-V-Z5a  | 05/19/10    | 4 - 5               | --                                       | 0.32 J                           |
|         | R2-007-V                                | R2-006-V-Z5b  | 05/19/10    | 5 - 6               | --                                       | 0.06 J                           |
|         |                                         | R2-007-V-Z1   | 05/19/10    | 0 - 1               | --                                       | 0.64 J                           |
|         |                                         | R2-007-V-Z1P  | 05/19/10    | 0 - 1               | --                                       | 0.38 J                           |
|         |                                         | R2-007-V-Z1P2 | 05/25/10    | 0 - 1               | 2.4                                      | --                               |
|         |                                         | R2-007-V-Z2   | 05/19/10    | 1 - 2               | --                                       | 2.3 J                            |
|         |                                         | R2-007-V-Z3   | 05/19/10    | 2 - 3               | --                                       | 23 J                             |
|         |                                         | R2-007-V-Z4   | 05/19/10    | 3 - 4               | --                                       | 0.69 J                           |
|         |                                         | R2-007-V-Z5a  | 05/19/10    | 4 - 5               | --                                       | 0.023 J                          |
|         |                                         | R2-007-V-Z5b  | 05/19/10    | 5 - 6               | --                                       | 0.011 U                          |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location                | Sample ID     | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|-------------------------|---------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 2 | R2-008-V                | R2-008-V-Z1   | 05/19/10    | 0 - 1               | --                                       | 0.35 J                           |
|         |                         | R2-008-V-Z1P  | 05/19/10    | 0 - 1               | 2.06 HM                                  | 0.13 J                           |
|         |                         | R2-008-V-Z2   | 05/19/10    | 1 - 2               | --                                       | 0.87                             |
|         |                         | R2-008-V-Z3   | 05/19/10    | 2 - 3               | --                                       | 1 J                              |
|         |                         | R2-008-V-Z4   | 05/19/10    | 3 - 4               | --                                       | 0.19                             |
|         |                         | R2-008-V-Z5   | 05/19/10    | 4.5 - 5             | --                                       | 0.011 U                          |
|         | R2-009-V-P,<br>R2-009-V | R2-009-V-Z1P2 | 05/25/10    | 0 - 1               | 2.59 HM                                  | --                               |
|         |                         | R2-009-V-Z1   | 05/19/10    | 0 - 1               | --                                       | 0.44 J                           |
|         |                         | R2-009-V-Z1P  | 05/19/10    | 0 - 1               | --                                       | 0.34 J                           |
|         |                         | R2-009-V-Z2   | 05/19/10    | 1 - 2               | --                                       | 0.59                             |
|         |                         | R2-009-V-Z3   | 05/19/10    | 2 - 3               | --                                       | 4.6                              |
|         |                         | R2-009-V-Z4   | 05/19/10    | 3 - 4               | --                                       | 0.25 J                           |
|         |                         | R2-009-VR     | 05/19/10    | 3 - 4               | --                                       | 0.5                              |
|         |                         | R2-009-V-Z5   | 05/19/10    | 4 - 5.5             | --                                       | 0.018 J                          |
|         | R2-010-V                | R2-010-V-Z1   | 05/25/10    | 0 - 1               | 2.98 HM                                  | --                               |
|         |                         | R2-010-V-Z1a  | 05/25/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |                         | R2-010-V-Z1b  | 05/25/10    | 0.5 - 1             | --                                       | 0.16 J                           |
|         |                         | R2-010-V-Z2   | 05/25/10    | 1 - 2               | --                                       | 0.17 J                           |
|         |                         | R2-010-V-Z3   | 05/25/10    | 2 - 3               | --                                       | 0.43 J                           |
|         |                         | R2-010-V-Z4   | 05/25/10    | 3 - 4               | --                                       | 1.2 J                            |
|         |                         | R2-010-V-Z5   | 05/25/10    | 4 - 6               | --                                       | 0.49 J                           |
|         |                         | R2-010-V-Z6   | 05/25/10    | 6 - 8               | --                                       | 0.045 J                          |
|         |                         | R2-010-VR     | 05/25/10    | 6 - 8               | --                                       | 0.011 U                          |
|         |                         | R2-010-V-Z7a  | 05/25/10    | 8 - 9               | --                                       | 0.011 U                          |
|         |                         | R2-010-V-Z7b  | 05/25/10    | 9 - 10              | --                                       | 0.011 U                          |
|         | R2-011-V                | R2-011-V-Z1   | 05/25/10    | 0 - 1               | 2.8                                      | --                               |
|         |                         | R2-011-V-Z1a  | 05/25/10    | 0 - 0.5             | --                                       | 0.38                             |
|         |                         | R2-011-V-Z1b  | 05/25/10    | 0.5 - 1             | --                                       | 0.14 J                           |
|         |                         | R2-011-V-Z2   | 05/25/10    | 1 - 2               | 2.82                                     | 0.011 U                          |
|         |                         | R2-011-V-Z3   | 05/25/10    | 2 - 3               | 7.2                                      | 0.53 J                           |
|         |                         | R2-011-V-Z4   | 05/25/10    | 3 - 4               | 5.98                                     | 0.46 J                           |
|         |                         | R2-011-V-Z5   | 05/25/10    | 4 - 6               | 24.1                                     | 4.9 J                            |
|         |                         | R2-011-V-Z6   | 05/25/10    | 6 - 8               | 5.46                                     | 0.98 J                           |
|         |                         | R2-011-V-Z7   | 05/25/10    | 8 - 10              | 1.27                                     | 0.05 J                           |
|         |                         | R2-011-V-Z8   | 05/25/10    | 10 - 11.5           | 0.116                                    | 0.011 U                          |
|         | R2-012-V                | R2-012-V-Z1   | 05/25/10    | 0 - 1               | 2.36                                     | --                               |
|         |                         | R2-012-V-Z1a  | 05/25/10    | 0 - 0.5             | --                                       | 0.22 J                           |
|         |                         | R2-012-V-Z1b  | 05/25/10    | 0.5 - 1             | --                                       | 0.6 J                            |
|         |                         | R2-012-V-Z2   | 05/25/10    | 1 - 2               | --                                       | 0.37 J                           |
|         |                         | R2-012-V-Z3   | 05/25/10    | 2 - 3               | --                                       | 0.62 J                           |
|         |                         | R2-012-V-Z4   | 05/25/10    | 3 - 4               | --                                       | 0.48 J                           |
|         |                         | R2-012-VR     | 05/25/10    | 3 - 4               | --                                       | 0.011 U                          |
|         |                         | R2-012-V-Z5   | 05/25/10    | 4 - 6               | --                                       | 7.1 J                            |
|         |                         | R2-012-V-Z6   | 05/25/10    | 6 - 8               | --                                       | 1.2 J                            |
|         |                         | R2-012-V-Z7   | 05/25/10    | 8 - 9               | --                                       | 0.026 J                          |
|         | R2-013-V                | R2-013-V-Z1   | 05/25/10    | 0 - 1               | 2.77 HM                                  | --                               |
|         |                         | R2-013-V-Z1a  | 05/25/10    | 0 - 0.5             | --                                       | 0.59                             |
|         |                         | R2-013-V-Z1b  | 05/25/10    | 0.5 - 1             | --                                       | 2.2 J                            |
|         |                         | R2-013-V-Z2   | 05/25/10    | 1 - 2               | --                                       | 0.61 J                           |
|         |                         | R2-013-V-Z3   | 05/25/10    | 2 - 3               | --                                       | 2.5 J                            |
|         |                         | R2-013-V-Z4   | 05/25/10    | 3 - 4               | --                                       | 0.79 J                           |
|         |                         | R2-013-V-Z5   | 05/25/10    | 4 - 6               | --                                       | 3.1 J                            |
|         |                         | R2-013-V-Z6   | 05/25/10    | 6 - 8               | --                                       | 0.5 J                            |
|         |                         | R2-013-V-Z7   | 05/25/10    | 8 - 10              | --                                       | 0.12 J                           |
|         |                         | R2-013-V-Z8   | 05/25/10    | 10 - 12             | --                                       | 0.077                            |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID    | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|--------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 2 | R2-014-V | R2-014-V-Z1  | 05/25/10    | 0 - 1               | 2.95 HM                                  | --                               |
|         |          | R2-014-V-Z1a | 05/25/10    | 0 - 0.5             | --                                       | 0.53 J                           |
|         |          | R2-014-V-Z1b | 05/25/10    | 0.5 - 1             | --                                       | 0.011 U                          |
|         |          | R2-014-V-Z2  | 05/25/10    | 1 - 2               | --                                       | 0.62 J                           |
|         |          | R2-014-V-Z3  | 05/25/10    | 2 - 3               | --                                       | 6.1 J                            |
|         |          | R2-014-V-Z4  | 05/25/10    | 3 - 4               | --                                       | 7.4 J                            |
|         |          | R2-014-V-Z5  | 05/25/10    | 4 - 6               | --                                       | 4.5 J                            |
|         |          | R2-014-VR    | 05/25/10    | 4 - 6               | --                                       | 2.7 J                            |
|         |          | R2-014-V-Z6  | 05/25/10    | 6 - 8               | --                                       | 0.62 J                           |
|         | R2-015-V | R2-014-V-Z7  | 05/25/10    | 8 - 10              | --                                       | 0.011 U                          |
|         |          | R2-015-V-Z1  | 05/25/10    | 0 - 1               | 2.1 HM                                   | --                               |
|         |          | R2-015-V-Z1a | 05/25/10    | 0 - 0.5             | --                                       | 0.29 J                           |
|         |          | R2-015-V-Z1b | 05/25/10    | 0.5 - 1             | --                                       | 0.24                             |
|         |          | R2-015-V-Z2  | 05/25/10    | 1 - 2               | --                                       | 0.36 J                           |
|         |          | R2-015-V-Z3  | 05/25/10    | 2 - 3               | --                                       | 6.8 J                            |
|         |          | R2-015-V-Z4  | 05/25/10    | 3 - 4               | --                                       | 3.7 J                            |
|         |          | R2-015-V-Z5  | 05/25/10    | 4 - 6               | --                                       | 0.46 J                           |
|         |          | R2-015-V-Z6  | 05/25/10    | 6 - 8               | --                                       | 0.031 J                          |
|         |          | R2-015-V-Z7a | 05/25/10    | 8 - 9               | --                                       | 0.011 U                          |
|         |          | R2-015-V-Z7b | 05/25/10    | 9 - 9.5             | --                                       | 0.011 U                          |
|         | R3-016-V | R3-016-V-Z1  | 05/26/10    | 0 - 1               | 8.3 HM                                   | --                               |
|         |          | R3-016-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 6.7 J                            |
|         |          | R3-016-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 10 J                             |
|         |          | R3-016-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 5.8 J                            |
|         |          | R3-016-V-Z3  | 05/26/10    | 2 - 3               | --                                       | 2.5                              |
|         |          | R3-016-V-Z4  | 05/26/10    | 3 - 4               | --                                       | 0.36 J                           |
|         |          | R3-016-VR    | 05/26/10    | 3 - 4               | --                                       | 0.35 J                           |
|         |          | R3-016-V-Z5  | 05/26/10    | 4 - 6               | --                                       | 0.065 J                          |
|         |          | R3-016-V-Z6  | 05/26/10    | 6 - 8               | --                                       | 0.011 U                          |
| Reach 3 | R3-017-V | R3-016-V-Z7  | 05/26/10    | 8 - 9               | --                                       | 0.011 U                          |
|         |          | R3-017-V-Z1  | 05/26/10    | 0 - 1               | 2.44                                     | --                               |
|         |          | R3-017-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.11 J                           |
|         |          | R3-017-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 0.33 J                           |
|         |          | R3-017-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R3-017-V-Z3  | 05/26/10    | 2 - 3               | --                                       | 5 J                              |
|         |          | R3-017-V-Z4  | 05/26/10    | 3 - 4               | --                                       | 11 J                             |
|         |          | R3-017-V-Z5  | 05/26/10    | 4 - 6               | --                                       | 1.8 J                            |
|         |          | R3-017-VR    | 05/26/10    | 4 - 6               | --                                       | 1.5 J                            |
|         | R3-018-V | R3-017-V-Z6  | 05/26/10    | 6 - 8               | --                                       | 0.086 J                          |
|         |          | R3-017-V-Z7  | 05/26/10    | 8 - 8.5             | --                                       | 0.011 U                          |
|         |          | R3-018-V-Z1  | 05/25/10    | 0 - 1               | 3.35 HM                                  | --                               |
|         |          | R3-018-V-Z1a | 05/25/10    | 0 - 0.5             | --                                       | 0.07 J                           |
|         |          | R3-018-V-Z1b | 05/25/10    | 0.5 - 1             | --                                       | 0.56 J                           |
|         |          | R3-018-V-Z2  | 05/25/10    | 1 - 2               | --                                       | 0.77 J                           |
|         |          | R3-018-V-Z3  | 05/25/10    | 2 - 3               | --                                       | 3.3 J                            |
|         |          | R3-018-V-Z4  | 05/25/10    | 3 - 4               | --                                       | 3.2 J                            |
|         |          | R3-018-V-Z5  | 05/25/10    | 4 - 6               | --                                       | 0.76 J                           |
|         | R3-019-V | R3-018-V-Z6  | 05/25/10    | 6 - 8               | --                                       | 0.12 J                           |
|         |          | R3-018-V-Z7  | 05/25/10    | 8 - 10              | --                                       | 0.015 J                          |
|         |          | R3-018-V-Z8  | 05/25/10    | 10 - 12             | --                                       | 0.011 U                          |
|         |          | R3-019-V-Z1  | 05/26/10    | 0 - 1               | 2.5 HM                                   | --                               |
|         |          | R3-019-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.76 J                           |
|         |          | R3-019-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 0.44 J                           |
|         |          | R3-019-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 0.62 J                           |
|         | R3-019-V | R3-019-V-Z3  | 05/26/10    | 2 - 3               | --                                       | 0.72 J                           |
|         |          | R3-019-V-Z4  | 05/26/10    | 3 - 4               | --                                       | 0.04 J                           |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID    | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|--------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 3 | R3-020-V | R3-020-V-Z1  | 05/26/10    | 0 - 1               | 3.84                                     | --                               |
|         |          | R3-020-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.48 J                           |
|         |          | R3-020-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 2.8 J                            |
|         |          | R3-020-V-Z2  | 05/26/10    | 1 - 2               | 35.9 HM                                  | 3.9 J                            |
|         |          | R3-020-V-Z3  | 05/26/10    | 2 - 3               | 35.2 HM                                  | 4.6 J                            |
|         |          | R3-020-V-Z4  | 05/26/10    | 3 - 4               | 11.8                                     | 1.9 J                            |
|         |          | R3-020-V-Z5  | 05/26/10    | 4 - 6               | 3.5                                      | 0.21 J                           |
|         |          | R3-020-V-Z6  | 05/26/10    | 6 - 8               | 0.457                                    | 0.042 J                          |
|         | R3-021-V | R3-020-V-Z7  | 05/26/10    | 8 - 10              | 0.000315                                 | 0.011 U                          |
|         |          | R3-021-V-Z1  | 05/26/10    | 0 - 1               | 0.027                                    | --                               |
|         |          | R3-021-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R3-021-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 0.011 U                          |
|         |          | R3-021-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 0.011 U                          |
|         | R3-022-V | R3-021-V-Z3  | 05/26/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R3-022-V-Z1  | 05/26/10    | 0 - 1               | 4.44                                     | --                               |
|         |          | R3-022-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.25 J                           |
|         |          | R3-022-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 0.33 J                           |
|         |          | R3-022-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 0.18 J                           |
|         |          | R3-022-VZ    | 05/26/10    | 1 - 2               | --                                       | 0.79 J                           |
|         |          | R3-022-V-Z3  | 05/26/10    | 2 - 3               | --                                       | 0.9 J                            |
|         |          | R3-022-V-Z4  | 05/26/10    | 3 - 4               | --                                       | 0.011 U                          |
|         | R3-023-V | R3-022-V-Z5  | 05/26/10    | 4 - 6               | --                                       | 0.011 U                          |
|         |          | R3-022-V-Z6  | 05/26/10    | 6 - 6.8             | --                                       | 0.011 U                          |
|         |          | R3-023-V-Z1  | 05/26/10    | 0 - 1               | 0.00174                                  | --                               |
|         |          | R3-023-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R3-023-V-Z1b | 05/26/10    | 0.5 - 0.9           | --                                       | 0.011 U                          |
|         | R3-024-V | R3-023-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R3-024-V-Z1  | 05/26/10    | 0 - 1               | 5.45 HM                                  | --                               |
|         |          | R3-024-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.65 J                           |
|         |          | R3-024-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 0.75 J                           |
|         |          | R3-024-V-Z2  | 05/26/10    | 1 - 2               | --                                       | 0.44 J                           |
|         |          | R3-024-V-Z3  | 05/26/10    | 2 - 3               | --                                       | 4.8 J                            |
|         |          | R3-024-V-Z4  | 05/26/10    | 3 - 4               | --                                       | 1.4 J                            |
|         |          | R3-024-V-Z5  | 05/26/10    | 4 - 6               | --                                       | 0.059 J                          |
|         | R3-025-V | R3-024-V-Z6  | 05/26/10    | 6 - 8               | --                                       | 0.011 U                          |
|         |          | R3-025-V-Z1  | 05/26/10    | 0 - 1               | 0.0531                                   | --                               |
|         |          | R3-025-V-Z1a | 05/26/10    | 0 - 0.5             | --                                       | 0.12 J                           |
|         |          | R3-025-V-Z1b | 05/26/10    | 0.5 - 1             | --                                       | 0.071 J                          |
|         | R3-026-V | R3-026-V-Z1  | 05/27/10    | 0 - 1               | 4.45                                     | --                               |
|         |          | R3-026-V-Z1a | 05/27/10    | 0 - 0.5             | --                                       | 0.38 J                           |
|         |          | R3-026-V-Z1b | 05/27/10    | 0.5 - 1             | --                                       | 0.8 J                            |
|         |          | R3-026-V-Z2  | 05/27/10    | 1 - 2               | --                                       | 0.54 J                           |
|         |          | R3-026-V-Z3  | 05/27/10    | 2 - 3               | --                                       | 1.3 J                            |
|         |          | R3-026-V-Z4  | 05/27/10    | 3 - 4               | 8.53                                     | 3.6 J                            |
|         | R3-027-V | R3-027-V-Z1  | 05/27/10    | 0 - 1               | 2.35                                     | --                               |
|         |          | R3-027-V-Z1a | 05/27/10    | 0 - 0.5             | --                                       | 0.32 J                           |
|         |          | R3-027-V-Z1b | 05/27/10    | 0.5 - 1             | --                                       | 0.38 J                           |
|         |          | R3-027-V-Z2  | 05/27/10    | 1 - 2               | --                                       | 2.1 J                            |
|         |          | R3-027-V-Z3  | 05/27/10    | 2 - 3               | --                                       | 2.8 J                            |
|         | R3-107-W | R3-027-V-Z4  | 05/27/10    | 3 - 4               | --                                       | 1.8 J                            |
|         |          | R3-107-W     | 11/16/09    | 0 - 0.5             | 0.72                                     | 0.53                             |
|         |          | R3-108-W     | 11/16/09    | 0 - 0.5             | --                                       | 0.3                              |
|         |          | R3-109-W     | 11/16/09    | 0 - 0.5             | --                                       | 0.27                             |
|         | R3-110-W | R3-110-W     | 11/16/09    | 0 - 0.5             | --                                       | 0.2                              |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID     | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|---------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 4 | R4-028-C | R4-028-C      | 11/17/09    | 0 - 1.55            | --                                       | 0.37                             |
|         | R4-029-C | R4-029-C      | 11/16/09    | 0 - 1.2             | --                                       | 0.072                            |
|         | R4-030-C | R4-030-C      | 11/16/09    | 0 - 1.1             | 0.29                                     | 0.7                              |
|         | R4-031-C | R4-031-C      | 11/16/09    | 0 - 0.8             | --                                       | 0.17                             |
|         | R4-032-C | R4-032-C      | 11/16/09    | 0 - 0.7             | --                                       | 0.3                              |
|         | R4-033-C | R4-033-C      | 11/17/09    | 0 - 0.4             | --                                       | 0.067                            |
|         | R4-034-C | R4-034-C      | 11/17/09    | 0 - 0.4             | --                                       | 0.1                              |
|         | R4-035-C | R4-035-C      | 11/17/09    | 0 - 0.8             | 0.97                                     | 0.81                             |
|         | R4-036-C | R4-036-C      | 11/17/09    | 0 - 0.9             | --                                       | 0.57                             |
|         | R4-037-C | R4-037-C      | 11/17/09    | 0 - 0.6             | 2.8                                      | 0.56                             |
|         | R4-038-C | R4-038-C      | 11/18/09    | 0 - 0.4             | --                                       | 0.29                             |
|         | R4-111-W | R4-111-W      | 11/16/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R4-112-W | R4-112-W      | 11/18/09    | 0 - 0.5             | --                                       | 0.15                             |
|         | R4-119-T | R4-119-T      | 11/17/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R4-126-H | R4-126-H      | 11/16/09    | 0 - 0.5             | --                                       | 0.15                             |
|         | R4-135-C | R4-135-C-Comp | 06/21/10    | 0 - 0.8             | --                                       | 27 J                             |
|         | R4-135-C | R4-135-C-Z1a  | 06/21/10    | 0 - 0.5             | --                                       | 5.3                              |
|         | R4-136-C | R4-136-C-Z1a  | 06/21/10    | 0 - 0.4             | --                                       | 1.1 NJ                           |
|         | R4-137-C | R4-137-C-Comp | 06/21/10    | 0 - 0.7             | --                                       | 0.32 J                           |
|         | R4-138-C | R4-138-C-Comp | 06/21/10    | 0 - 0.4             | --                                       | 0.33 J                           |
|         | R4-139-C | R4-139-C-Z1a  | 06/22/10    | 0 - 0.3             | --                                       | 1.5 NJ                           |
|         | R4-140-C | R4-140-C-Z1a  | 06/23/10    | 0 - 0.3             | --                                       | 0.046 U                          |
|         | R4-141-C | R4-141-C-Comp | 06/23/10    | 0 - 0.8             | --                                       | 0.069 U                          |
|         |          | R4-141-C-Z1a  | 06/23/10    | 0 - 0.5             | --                                       | 0.71 J                           |
|         |          | R4-141-CR     | 06/23/10    | 0 - 0.5             | --                                       | 0.37 J                           |
|         | R4-142-C | R4-142-C-Z1a  | 06/23/10    | 0 - 0.2             | --                                       | 0.046 U                          |
|         | R4-143-C | R4-143-C-Z1a  | 06/23/10    | 0 - 0.3             | --                                       | 1.1                              |
| Reach 5 | R5-039-V | R5-039-V-Z1   | 05/21/10    | 0 - 1               | --                                       | 0.011 U                          |
|         | R5-039-V | R5-039-V-Z2   | 05/21/10    | 1 - 1.9             | --                                       | 0.48 J                           |
|         | R5-040-V | R5-040-V-Z1a  | 05/20/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R5-040-V-Z1b  | 05/20/10    | 0.5 - 1             | --                                       | 0.011 U                          |
|         |          | R5-040-V-Z2   | 05/20/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R5-040-V-Z3   | 05/20/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R5-040-V-Z4   | 05/20/10    | 3 - 4               | --                                       | 0.011 U                          |
|         |          | R5-040-V-Z5a  | 05/20/10    | 4.5 - 5             | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z1a  | 05/24/10    | 0 - 0.5             | --                                       | 0.011 J                          |
|         | R5-041-V | R5-041-V-Z1b  | 05/24/10    | 0.5 - 1             | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z2   | 05/24/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z3   | 05/24/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z4   | 05/24/10    | 3 - 4               | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z5a  | 05/24/10    | 4 - 5               | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z5b  | 05/24/10    | 5 - 6               | --                                       | 0.011 U                          |
|         |          | R5-041-V-Z6a  | 05/24/10    | 6 - 7               | --                                       | 0.011 U                          |
|         | R5-042-V | R5-041-V-Z6b  | 05/24/10    | 7 - 7.5             | --                                       | 0.011 U                          |
|         |          | R5-042-V-Z1A  | 05/20/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R5-042-V-Z1b  | 05/20/10    | 0.5 - 1             | --                                       | 0.011 U                          |
|         |          | R5-042-V-Z2   | 05/20/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R5-042-V-Z3   | 05/20/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R5-042-V-Z4   | 05/20/10    | 3 - 4               | --                                       | 0.011 U                          |
|         |          | R5-042-V-Z5a  | 05/20/10    | 4.5 - 5             | --                                       | 0.0049 J                         |
|         | R5-043-V | R5-043-V-Z1   | 05/20/10    | 0 - 1               | --                                       | 0.11 J                           |
|         |          | R5-043-V-Z1P  | 05/20/10    | 0 - 1               | --                                       | 0.19 J                           |
|         |          | R5-043-V-Z2   | 05/20/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R5-043-V-Z3   | 05/20/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R5-043-V-Z4   | 05/20/10    | 3 - 4               | --                                       | 0.14 J                           |
|         |          | R5-043-V-Z5a  | 05/20/10    | 4 - 4.5             | --                                       | 0.011 U                          |
|         |          | R5-043-V-Z5b  | 05/20/10    | 4.5 - 5             | --                                       | 0.011 U                          |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID    | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|--------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 5 | R5-044-V | R5-044-V-Z1a | 05/20/10    | 0 - 0.5             | --                                       | 0.028 J                          |
|         |          | R5-044-V-Z1b | 05/20/10    | 0.5 - 1             | --                                       | 1.2 J                            |
|         |          | R5-044-V-Z2  | 05/20/10    | 1 - 2               | --                                       | 0.57 J                           |
|         |          | R5-044-VR    | 05/20/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R5-044-V-Z3  | 05/20/10    | 2 - 3               | --                                       | 0.011 U                          |
|         | R5-045-V | R5-045-V-Z1  | 05/20/10    | 0 - 1               | --                                       | 1 J                              |
|         |          | R5-045-V-Z2  | 05/20/10    | 1 - 2               | --                                       | 0.55 J                           |
|         |          | R5-045-V-Z3  | 05/20/10    | 2 - 3               | --                                       | 0.28                             |
|         |          | R5-045-V-Z4  | 05/20/10    | 3 - 4               | --                                       | 0.0087 J                         |
|         |          | R5-045-VR    | 05/20/10    | 3 - 4               | --                                       | 0.014 J                          |
|         | R5-046-V | R5-045-V-Z5a | 05/20/10    | 4.5 - 5             | --                                       | 0.0077 J                         |
|         |          | R5-046-V-Z1a | 05/20/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R5-046-V-Z1b | 05/20/10    | 0.5 - 1             | --                                       | 0.021 J                          |
|         |          | R5-046-V-Z2  | 05/20/10    | 1 - 2               | --                                       | 0.011 U                          |
|         |          | R5-046-V-Z3  | 05/20/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R5-046-V-Z4  | 05/20/10    | 3 - 4               | --                                       | 0.011 U                          |
|         |          | R5-046-V-Z5a | 05/20/10    | 4 - 5               | --                                       | 0.011 U                          |
|         | R5-047-V | R5-046-V-Z5b | 05/20/10    | 5 - 6               | --                                       | 0.011 U                          |
|         |          | R5-046-V-Z6a | 05/20/10    | 6 - 7               | --                                       | 0.011 U                          |
|         |          | R5-047-V-Z1a | 05/20/10    | 0 - 0.5             | --                                       | 0.39 J                           |
|         |          | R5-047-V-Z1b | 05/20/10    | 0.5 - 1             | --                                       | 0.21 J                           |
|         |          | R5-047-V-Z2  | 05/20/10    | 1 - 2               | --                                       | 0.011 U                          |
|         | R5-048-V | R5-047-V-Z3  | 05/20/10    | 2 - 3               | --                                       | 0.011 U                          |
|         |          | R5-047-V-Z4  | 05/20/10    | 3 - 4               | --                                       | 0.011 U                          |
|         |          | R5-048-V-Z1a | 05/21/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R5-048-V-Z1b | 05/21/10    | 0.5 - 1             | --                                       | 0.011 U                          |
|         |          | R5-048-V-Z2  | 05/21/10    | 1 - 2               | --                                       | 0.011 U                          |
|         | R5-049-V | R5-048-V-Z3  | 05/21/10    | 2 - 3               | --                                       | 0.0056 J                         |
|         |          | R5-049-V-Z1  | 05/21/10    | 0 - 1               | 4.94                                     | --                               |
|         |          | R5-049-V-Z1a | 05/21/10    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R5-049-V-Z1b | 05/21/10    | 0.5 - 1             | --                                       | 0.48                             |
|         |          | R5-049-V-Z2  | 05/21/10    | 1 - 2               | 7.65                                     | 0.29 J                           |
|         |          | R5-049-V-Z3  | 05/21/10    | 2 - 3               | 29.1                                     | 1.1 J                            |
|         |          | R5-049-V-Z4  | 05/21/10    | 3 - 4               | 0.205                                    | 0.011 U                          |
|         | R5-050-V | R5-049-V-Z5a | 05/21/10    | 4 - 4.5             | --                                       | 0.011 U                          |
|         |          | R5-050-V-Z1a | 05/21/10    | 0 - 0.5             | --                                       | 0.25 J                           |
|         |          | R5-050-V-Z1b | 05/21/10    | 0.5 - 1             | --                                       | 0.16 J                           |
|         |          | R5-050-V-Z2  | 05/21/10    | 1 - 2               | --                                       | 1.1 J                            |
|         |          | R5-050-VR    | 05/21/10    | 1 - 2               | --                                       | 0.011 U                          |
| Reach 6 | R6-051-C | R5-050-V-Z3  | 05/21/10    | 2 - 3               | --                                       | 0.2 J                            |
|         |          | R5-050-V-Z4  | 05/21/10    | 3 - 4               | --                                       | 0.91 J                           |
|         |          | R5-050-V-Z5a | 05/21/10    | 4 - 4.5             | --                                       | 0.76 J                           |
|         |          | R6-051-C     | 11/19/09    | 0 - 1.2             | --                                       | 0.47                             |
|         |          | R6-051-CR    | 11/19/09    | 0 - 1.2             | --                                       | 0.47                             |
|         | R6-052-C | R6-052-C     | 11/19/09    | 0 - 1.3             | --                                       | 1.3                              |
|         |          | R6-053-C     | 11/19/09    | 0 - 1.2             | 1                                        | 0.72                             |
|         |          | R6-054-C     | 12/02/09    | 0 - 0.5             | --                                       | 0.47                             |
|         |          | R6-055-C     | 11/17/09    | 0 - 1.1             | --                                       | 0.32                             |
|         |          | R6-056-C     | 11/17/09    | 0 - 1.2             | 1.8                                      | 1                                |
|         | R6-057-C | R6-056-CR    | 11/17/09    | 0 - 1.2             | 2.7                                      | 3.3                              |
|         |          | R6-057-C     | 11/17/09    | 0 - 1.4             | --                                       | 0.011 U                          |
|         |          | R6-058-C     | 11/18/09    | 0 - 2.2             | 2.8                                      | 0.73                             |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID     | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|---------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 6 | R6-059-C | R6-059-C      | 11/18/09    | 0 - 1.3             | --                                       | 0.49                             |
|         | R6-060-C | R6-060-C      | 11/18/09    | 0 - 0.8             | --                                       | 0.4                              |
|         | R6-061-C | R6-061-C      | 11/18/09    | 0 - 4               | --                                       | 0.53                             |
|         | R6-062-C | R6-062-C      | 11/19/09    | 0 - 3.7             | 1.8                                      | 0.66                             |
|         | R6-063-C | R6-063-C      | 11/19/09    | 0 - 1.1             | --                                       | 2                                |
|         | R6-064-C | R6-064-C      | 11/19/09    | 0 - 1.4             | --                                       | 0.39                             |
|         | R6-065-C | R6-065-C      | 11/19/09    | 0 - 2.4             | --                                       | 1                                |
|         | R6-066-C | R6-066-C      | 11/25/09    | 0 - 1.9             | 7.9                                      | 4.5                              |
|         | R6-067-C | R6-067-C      | 11/25/09    | 0 - 2.1             | 12                                       | 0.87                             |
|         | R6-117-W | R6-117-W      | 12/02/09    | 0 - 0.5             | --                                       | 0.072                            |
|         | R6-128-H | R6-128-H      | 12/02/09    | 0 - 0.5             | --                                       | 0.48                             |
|         | R6-129-H | R6-129-H      | 12/02/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R6-144-C | R6-144-C-Comp | 07/02/10    | 0 - 1.3             | --                                       | 0.08 J                           |
|         | R6-144-C | R6-144-C-Z1a  | 07/02/10    | 0 - 0.5             | --                                       | 0.097 U                          |
|         | R6-145-C | R6-145-C-Comp | 07/02/10    | 0 - 0.7             | --                                       | 0.033 U                          |
|         | R6-145-C | R6-145-C-Z1a  | 07/02/10    | 0 - 0.5             | --                                       | 0.049 J                          |
|         | R6-146-C | R6-146-C-Comp | 07/02/10    | 0 - 1.1             | --                                       | 0.033 U                          |
|         | R6-146-C | R6-146-C-Z1a  | 07/02/10    | 0 - 0.5             | --                                       | 0.65 J                           |
|         | R6-147-C | R6-147-C-Comp | 07/01/10    | 0 - 0.8             | --                                       | 0.64 J                           |
|         | R6-147-C | R6-147-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.29 J                           |
|         | R6-148-C | R6-148-C-Comp | 07/01/10    | 0 - 0.9             | --                                       | 0.061 U                          |
|         |          | R6-148-CR     | 07/01/10    | 0 - 0.9             | --                                       | 0.14 J                           |
|         | R6-149-C | R6-149-C-Comp | 07/01/10    | 0 - 0.9             | --                                       | 0.15 NJ                          |
|         | R6-150-C | R6-150-C-Comp | 07/01/10    | 0 - 0.9             | --                                       | 0.06 J                           |
|         | R6-151-C | R6-151-C-Comp | 07/02/10    | 0 - 0.7             | --                                       | 0.085 U                          |
|         | R6-152-C | R6-152-C-Comp | 07/02/10    | 0 - 0.7             | --                                       | 0.02 J                           |
|         |          | R6-152-CR     | 07/02/10    | 0 - 0.7             | --                                       | 0.093 J                          |
|         | R6-153-C | R6-153-C-Comp | 07/02/10    | 0 - 0.5             | --                                       | 0.49 J                           |
|         | R6-154-C | R6-154-C-Comp | 07/01/10    | 0 - 1.1             | --                                       | 0.023 J                          |
|         |          | R6-154-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.07 J                           |
|         | R6-155-C | R6-155-C-Comp | 07/01/10    | 0 - 0.7             | --                                       | 0.77 J                           |
|         | R6-156-C | R6-156-C-Comp | 07/01/10    | 0 - 0.7             | --                                       | 0.074 J                          |
|         | R6-157-C | R6-157-C-Comp | 07/01/10    | 0 - 1.2             | --                                       | 1.2 J                            |
|         |          | R6-157-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.48 NJ                          |
|         |          | R6-158-C-Comp | 07/01/10    | 0 - 1.4             | --                                       | 0.39 J                           |
|         | R6-158-C | R6-158-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.053 U                          |
|         |          | R6-158-CR     | 07/01/10    | 0 - 0.5             | --                                       | 0.055 U                          |
|         | R6-159-C | R6-159-C-Comp | 07/01/10    | 0 - 1.3             | --                                       | 0.41 J                           |
|         |          | R6-159-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.02 J                           |
|         | R6-160-C | R6-160-C-Comp | 07/01/10    | 0 - 1.7             | --                                       | 1.4 J                            |
|         |          | R6-160-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.1 U                            |
|         | R6-161-C | R6-161-C-Z1   | 07/01/10    | 0.5 - 1.5           | --                                       | 16 J                             |
|         |          | R6-161-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.03 J                           |
|         | R6-162-C | R6-162-C-Comp | 06/30/10    | 0 - 0.8             | --                                       | 0.066 U                          |
|         | R6-163-C | R6-163-C-Z1   | 06/30/10    | 0.5 - 1.4           | --                                       | 0.054 U                          |
|         |          | R6-163-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.046 U                          |
|         | R6-164-C | R6-164-C-Comp | 06/30/10    | 0 - 1.4             | --                                       | 0.07 U                           |
|         |          | R6-164-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.057 U                          |
|         | R6-165-C | R6-165-C-Comp | 06/30/10    | 0 - 1.6             | --                                       | 0.24 J                           |
|         |          | R6-165-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.33 J                           |
|         | R6-166-C | R6-166-C-Comp | 06/30/10    | 0 - 2.1             | --                                       | 0.018 J                          |
|         |          | R6-166-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.05 J                           |
|         | R6-167-C | R6-167-C-Comp | 06/30/10    | 0 - 1.3             | --                                       | 0.089 U                          |
|         |          | R6-167-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.026 J                          |
|         | R6-168-C | R6-168-C-Comp | 06/30/10    | 0 - 1.3             | --                                       | 0.064 U                          |
|         |          | R6-168-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.42 J                           |



Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID     | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|---------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 6 | R6-169-C | R6-169-C-Comp | 06/28/10    | 0 - 1.4             | --                                       | 0.25 J                           |
|         |          | R6-169-C-Z1a  | 06/28/10    | 0 - 0.5             | --                                       | 0.34 J                           |
|         | R6-170-C | R6-170-C-Comp | 06/25/10    | 0 - 1.5             | --                                       | 0.24 J                           |
|         |          | R6-170-C-Z1a  | 06/25/10    | 0 - 0.5             | --                                       | 0.59 J                           |
|         | R6-171-C | R6-171-C-Comp | 06/25/10    | 0 - 1.2             | --                                       | 0.73 J                           |
|         |          | R6-171-C-Z1a  | 06/25/10    | 0 - 0.5             | --                                       | 1.5 J                            |
|         | R7-068-C | R7-068-C      | 11/25/09    | 0 - 2.1             | 86                                       | 3.6                              |
|         |          | R7-068-CR     | 11/25/09    | 0 - 2.1             | 58                                       | 11                               |
|         | R7-069-C | R7-069-C      | 11/25/09    | 0 - 2.4             | --                                       | 1.9                              |
|         | R7-070-C | R7-070-C      | 11/25/09    | 0 - 2.4             | --                                       | 0.46                             |
| Reach 7 | R7-071-C | R7-071-C      | 11/25/09    | 0 - 1.5             | 44                                       | 4.2                              |
|         | R7-072-C | R7-072-C      | 11/24/09    | 0 - 0.8             | --                                       | 3.9                              |
|         | R7-073-C | R7-073-C      | 11/24/09    | 0 - 2.4             | --                                       | 4.4                              |
|         | R7-074-C | R7-074-C      | 11/24/09    | 0 - 2.3             | 6.2                                      | 4.3                              |
|         | R7-075-C | R7-075-C      | 11/24/09    | 0 - 2.1             | 8.1                                      | 1.3                              |
|         | R7-076-C | R7-076-C      | 11/24/09    | 0 - 2               | --                                       | 6.8                              |
|         | R7-077-C | R7-077-C      | 11/24/09    | 0 - 1.2             | --                                       | 1.4                              |
|         | R7-078-C | R7-078-C      | 12/02/09    | 0 - 4               | --                                       | 0.45                             |
|         | R7-079-C | R7-079-C      | 12/02/09    | 0 - 2.4             | --                                       | 7.7                              |
|         | R7-080-C | R7-080-C      | 12/02/09    | 0 - 1.7             | 4.9                                      | 0.76                             |
|         | R7-081-C | R7-081-C      | 12/02/09    | 0 - 1.7             | 49                                       | 0.63                             |
|         | R7-082-C | R7-082-C      | 11/30/09    | 0 - 1.6             | --                                       | 0.32                             |
|         |          | R7-082-CR     | 11/30/09    | 0 - 1.6             | 5.8                                      | 1.4                              |
|         | R7-083-C | R7-083-C      | 11/30/09    | 0 - 3.3             | --                                       | 1.5                              |
|         | R7-084-C | R7-084-C      | 11/30/09    | 0 - 3.3             | 17                                       | 0.96                             |
|         | R7-085-C | R7-085-C      | 11/30/09    | 0 - 1.6             | --                                       | 7.8                              |
|         | R7-086-C | R7-086-C      | 11/30/09    | 0 - 3.2             | 22                                       | 4.1                              |
|         | R7-087-C | R7-087-C      | 11/30/09    | 0 - 2.1             | 14                                       | 0.82                             |
|         | R7-088-C | R7-088-C      | 11/25/09    | 0 - 1               | 19                                       | 55                               |
|         | R7-089-C | R7-089-C      | 11/25/09    | 0 - 2.9             | 50                                       | 97                               |
|         | R7-090-C | R7-090-C      | 11/25/09    | 0 - 3.5             | --                                       | 3.4                              |
|         | R7-091-C | R7-091-C      | 11/24/09    | 0 - 1.4             | 17                                       | 11                               |
|         | R7-092-C | R7-092-C      | 11/24/09    | 0 - 1               | --                                       | 2.5                              |
|         | R7-093-C | R7-093-C      | 11/24/09    | 0 - 0.9             | --                                       | 3.1                              |
|         | R7-094-C | R7-094-C      | 11/23/09    | 0 - 1               | 5.9                                      | 1.3                              |
|         | R7-095-C | R7-095-C      | 11/23/09    | 0 - 1.3             | --                                       | 1.2                              |
|         |          | R7-095-CR     | 11/23/09    | 0 - 1.3             | --                                       | 3                                |
|         | R7-096-C | R7-096-C      | 11/23/09    | 0 - 1.3             | --                                       | 1.8                              |
|         | R7-097-C | R7-097-C      | 11/23/09    | 0 - 0.9             | --                                       | 2.2                              |
|         | R7-098-C | R7-098-C      | 11/23/09    | 0 - 1.9             | --                                       | 1.6                              |
|         | R7-099-C | R7-099-C      | 11/23/09    | 0 - 1.3             | 6.7                                      | 0.65                             |
|         | R7-100-C | R7-100-C      | 11/23/09    | 0 - 1.2             | 10                                       | 0.5                              |
|         | R7-101-C | R7-101-C      | 11/30/09    | 0 - 0.5             | 22                                       | 1.1                              |
|         | R7-102-C | R7-102-C      | 11/30/09    | 0 - 1.5             | --                                       | 1.9                              |
|         | R7-103-C | R7-103-C      | 11/30/09    | 0 - 2.3             | 33                                       | 1.5                              |
|         | R7-104-C | R7-104-C      | 12/02/09    | 0 - 1               | 22                                       | 9.8                              |
|         | R7-105-C | R7-105-C      | 11/30/09    | 0 - 1.4             | --                                       | 4.8                              |
|         | R7-106-C | R7-106-C      | 11/30/09    | 0 - 0.5             | 13                                       | 0.43                             |
|         | R7-118-W | R7-118-W      | 11/30/09    | 0 - 0.5             | --                                       | 0.19                             |
|         | R7-120-T | R7-120-T-Z1   | 11/24/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R7-120-T | R7-120-T-Z2   | 11/24/09    | 0.5 - 2.1           | --                                       | 0.011 U                          |
|         | R7-121-T | R7-121-T-Z1   | 12/02/09    | 0 - 0.5             | --                                       | 0.39                             |
|         | R7-122-T | R7-122-T-Z1   | 11/25/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         |          | R7-122-T-Z2   | 11/25/09    | 0.5 - 1             | --                                       | 0.011 U                          |
|         | R7-123-T | R7-123-T-Z1   | 11/23/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R7-123-T | R7-123-T-Z2   | 11/23/09    | 0.5 - 1             | --                                       | 0.011 U                          |
|         | R7-124-T | R7-124-T-Z1   | 11/23/09    | 0 - 0.4             | --                                       | 0.011 U                          |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID     | Sample Date | Sample Depth (feet) | Total PCB Congeners by HRGC/HRMS (mg/kg) | Total Aroclors by MC ARO (mg/kg) |
|---------|----------|---------------|-------------|---------------------|------------------------------------------|----------------------------------|
| Reach 7 | R7-125-T | R7-125-T-Z1   | 11/30/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R7-125-T | R7-125-T-Z2   | 11/30/09    | 0.5 - 0.8           | --                                       | 0.011 U                          |
|         | R7-130-H | R7-130-H      | 11/30/09    | 0 - 0.5             | --                                       | 0.011 U                          |
|         | R7-131-H | R7-131-H      | 11/30/09    | 0 - 0.5             | 15                                       | 1.3                              |
|         | R7-132-H | R7-132-H      | 11/25/09    | 0 - 0.5             | --                                       | 0.035                            |
|         | R7-133-H | R7-133-H      | 11/24/09    | 0 - 0.5             | --                                       | 0.045                            |
|         | R7-134-H | R7-134-H      | 11/23/09    | 0 - 0.5             | --                                       | 3.3                              |
|         | R7-172-C | R7-172-C-Comp | 06/25/10    | 0 - 0.9             | --                                       | 26 J                             |
|         |          | R7-172-C-Z1a  | 06/25/10    | 0 - 0.5             | --                                       | 15 J                             |
|         | R7-173-C | R7-173-C-Comp | 06/25/10    | 0 - 1.1             | --                                       | 1.4 J                            |
|         |          | R7-173-C-Z1a  | 06/25/10    | 0 - 0.5             | --                                       | 1.3 J                            |
|         | R7-174-C | R7-174-C-Comp | 06/25/10    | 0 - 1.2             | --                                       | 4.8 J                            |
|         |          | R7-174-C-Z1a  | 06/25/10    | 0 - 0.5             | --                                       | 2.7 J                            |
|         | R7-175-C | R7-175-C-Z1   | 06/24/10    | 0.5 - 1.4           | --                                       | 0.52 J                           |
|         |          | R7-175-C-Z1a  | 06/24/10    | 0 - 0.5             | --                                       | 1 J                              |
|         | R7-176-C | R7-176-C-Comp | 06/24/10    | 0 - 0.9             | --                                       | 8.1 J                            |
|         |          | R7-176-C-Z1a  | 06/24/10    | 0 - 0.5             | --                                       | 11 NJ                            |
|         | R7-177-C | R7-177-C-Z1   | 06/24/10    | 0.5 - 1.1           | --                                       | 0.74 J                           |
|         |          | R7-177-CR     | 06/24/10    | 0.5 - 1.1           | --                                       | 0.42 NJ                          |
|         |          | R7-177-C-Z1a  | 06/24/10    | 0 - 0.5             | --                                       | 1.1 J                            |
|         | R7-178-C | R7-178-C-Z1   | 06/24/10    | 0.5 - 1.2           | --                                       | 84 J                             |
|         |          | R7-178-C-Z1a  | 06/24/10    | 0 - 0.5             | --                                       | 4.5 J                            |
|         | R7-179-C | R7-179-C-Comp | 06/23/10    | 0 - 0.7             | --                                       | 5.7 J                            |
|         |          | R7-179-C-Z1a  | 06/23/10    | 0 - 0.5             | --                                       | 5.4 J                            |
|         | R7-180-C | R7-180-C-Comp | 06/23/10    | 0 - 1.1             | --                                       | 44                               |
|         |          | R7-180-C-Z1a  | 06/23/10    | 0 - 0.5             | --                                       | 4 J                              |
|         | R7-181-C | R7-181-C-Comp | 07/01/10    | 0 - 1.3             | --                                       | 0.11 J                           |
|         |          | R7-181-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.052 U                          |
|         | R7-182-C | R7-182-C-COMP | 07/01/10    | 0 - 0.8             | --                                       | 0.052 U                          |
|         | R7-183-C | R7-183-C-Comp | 07/01/10    | 0 - 1.3             | --                                       | 0.033 U                          |
|         |          | R7-183-C-Z1a  | 07/01/10    | 0 - 0.5             | --                                       | 0.16 J                           |
|         | R7-184-C | R7-184-C-Comp | 06/30/10    | 0 - 0.75            | --                                       | 6.9                              |
|         | R7-185-C | R7-185-C-Comp | 06/30/10    | 0 - 0.7             | --                                       | 1.1 NJ                           |
|         | R7-185-C | R7-185-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.091 U                          |
|         |          | R7-186-C-Comp | 06/30/10    | 0 - 0.7             | --                                       | 0.85 J                           |
|         | R7-186-C | R7-186-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.06 U                           |
|         |          | R7-187-C-Comp | 06/30/10    | 0 - 0.95            | --                                       | 64 J                             |
|         | R7-187-C | R7-187-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.67 NJ                          |
|         |          | R7-188-C-Z1   | 06/30/10    | 0.4 - 1.1           | --                                       | 0.056 U                          |
|         | R7-188-C | R7-188-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.087 U                          |
|         |          | R7-189-C-Comp | 06/30/10    | 0 - 1.2             | --                                       | 0.24 J                           |
|         | R7-189-C | R7-189-CR     | 06/30/10    | 0 - 1.2             | --                                       | 0.18 NJ                          |
|         |          | R7-189-C-Z1a  | 06/30/10    | 0 - 0.5             | --                                       | 0.082 U                          |
|         | R7-190-C | R7-190-C-Comp | 06/30/10    | 0 - 0.7             | --                                       | 0.85 J                           |
|         | R7-191-C | R7-191-C-Comp | 06/29/10    | 0 - 0.9             | --                                       | 0.94 J                           |
|         |          | R7-191-C-Z1a  | 06/29/10    | 0 - 0.5             | --                                       | 1 J                              |
|         | R7-192-C | R7-192-C-Z1a  | 06/29/10    | 0 - 0.3             | --                                       | 0.27                             |
|         | R7-193-C | R7-193-C-Comp | 06/29/10    | 0 - 0.8             | --                                       | 0.18 J                           |
|         |          | R7-193-C-Z1a  | 06/29/10    | 0 - 0.5             | --                                       | 1.3 J                            |
|         | R7-194-C | R7-194-C-Comp | 06/29/10    | 0 - 0.6             | --                                       | 35 NJ                            |
|         | R7-195-C | R7-195-C-Comp | 06/29/10    | 0 - 0.6             | --                                       | 4.7 NJ                           |
|         | R7-196-C | R7-196-C-Comp | 06/29/10    | 0 - 1.3             | --                                       | 0.59 NJ                          |
|         |          | R7-196-C-Z1a  | 06/29/10    | 0 - 0.5             | --                                       | 0.73 J                           |
|         | R7-197-C | R7-197-C-Comp | 06/28/10    | 0 - 1.2             | --                                       | 1.8 J                            |
|         |          | R7-197-CR     | 06/28/10    | 0 - 1.2             | --                                       | 0.53 J                           |
|         |          | R7-197-C-Z1a  | 06/28/10    | 0 - 0.5             | --                                       | 1.3 J                            |

Table 4-8b  
Comparison of Total PCB Congener Results versus Total Aroclor Results

| Reach   | Location | Sample ID     | Sample      |              | Total PCB Congeners<br>by HRGC/HRMS (mg/kg) | Total Aroclors<br>by MC ARO (mg/kg) |
|---------|----------|---------------|-------------|--------------|---------------------------------------------|-------------------------------------|
|         |          |               | Sample Date | Depth (feet) |                                             |                                     |
| Reach 7 | R7-198-C | R7-198-C-Comp | 06/28/10    | 0 - 0.9      | --                                          | 2.6 J                               |
|         |          | R7-198-C-Z1a  | 06/28/10    | 0 - 0.5      | --                                          | 0.06 U                              |
|         | R7-199-C | R7-199-C-Comp | 06/28/10    | 0 - 1.5      | --                                          | 0.069 U                             |
|         |          | R7-199-C-Z1a  | 06/28/10    | 0 - 0.5      | --                                          | 0.1 U                               |
|         | R7-200-C | R7-200-C-Comp | 06/28/10    | 0 - 3        | --                                          | 13 J                                |
|         |          | R7-200-C-Z1a  | 06/28/10    | 0 - 0.5      | --                                          | 1.7 J                               |
|         | R7-201-T | R7-201-T-Comp | 06/25/10    | 0 - 1.1      | --                                          | 0.064 U                             |
|         |          | R7-201-T-Z1a  | 06/25/10    | 0 - 0.5      | --                                          | 0.07 U                              |
|         | R7-202-T | R7-202-T-Comp | 06/29/10    | 0 - 0.9      | --                                          | 0.067 U                             |
|         |          | R7-202-T-Z1a  | 06/29/10    | 0 - 0.5      | --                                          | 0.11 U                              |
|         | R7-203-T | R7-203-T-Comp | 06/29/10    | 0 - 0.7      | --                                          | 0.087 U                             |
|         |          | R7-203-T-Z1a  | 06/29/10    | 0 - 0.5      | --                                          | 0.08 U                              |
|         | R7-204-T | R7-204-T-Z1a  | 06/29/10    | 0 - 0.3      | --                                          | 0.062 U                             |
|         | R7-205-T | R7-205-T-Comp | 06/29/10    | 0 - 0.8      | --                                          | 0.051 U                             |
|         |          | R7-205-T-Z1a  | 06/29/10    | 0 - 0.5      | --                                          | 0.11 J                              |

Key:

- C = Hand-core creek location/sample.
- Comp = Hand-core creek composite sample.
- CR= Hand-core creek duplicate sample.
- ft = Feet.
- H = Historical channel location/sample.
- HM = High Moisture Content.
- J = Estimated at the concentration listed.
- mg/Kg = Milligrams per kilogram.
- NJ = Estimated.
- P = Ponar creek location/sample.
- PCB = Polychlorinated biphenyl.
- T = Tributary location/sample.
- U = Non-detect.
- V = Vibracore creek location/sample.
- VR = Vibracore creek duplicate sample.
- W = Wetland location/sample.
- Z = Sample depth interval consecutively numbered.

Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |  | R2-002-VR | R2-002-V-Z1 | R2-002-V-Z2 | R2-002-V-Z3 | R2-002-V-Z4 | R2-002-V-Z5 | R2-002-V-Z6 | R2-002-V-Z1P | R2-008-V-Z1 |
|------------------------------------------|--|-----------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Sample Date                              |  | 5/18/2010 | 5/18/2010   | 5/18/2010   | 5/18/2010   | 5/18/2010   | 5/18/2010   | 5/18/2010   | 5/18/2010    | 5/19/2010   |
| Sample Depth Range (ft)                  |  | 4-6       | 0-1         | 1-2         | 2-3         | 3-4         | 4-6         | 6-7.5       | 0-1          | 0-1         |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |           |             |             |             |             |             |             |              |             |
| 1-METHYLNAPHTHALENE                      |  | 0.11 J    | 0.0058 U    | 0.0051 U    | 0.018       | 0.047       | 0.31 J      | 0.016       | 0.0059 U     | 0.005 U     |
| 2-METHYLNAPHTHALENE                      |  | 0.1 J     | 0.0058 U    | 0.0051 U    | 0.022       | 0.049       | 0.16 U      | 0.019       | 0.0059 U     | 0.01 J      |
| ACENAPHTHENE                             |  | 0.15 J    | 0.0058 U    | 0.0051 U    | 0.0051 U    | 0.072       | 0.53 J      | 0.016       | 0.0059 U     | 0.005 U     |
| ACENAPHTHYLENE                           |  | 0.027 J   | 0.036       | 0.027       | 0.033       | 0.041       | 0.019       | 0.018       | 0.047        | 0.028       |
| ANTHRACENE                               |  | 0.25 J    | 0.02        | 0.0051 U    | 0.016       | 0.019       | 0.93 J      | 0.034       | 0.012        | 0.021       |
| BENZO(A)ANTHRACENE                       |  | 0.43 J    | 0.11        | 0.044       | 0.069       | 0.12        | 0.43 J      | 0.11        | 0.072        | 0.14        |
| BENZO(A)PYRENE                           |  | 0.14 J    | 0.16        | 0.051       | 0.066       | 0.15        | 0.4 J       | 0.13        | 0.077        | 0.17        |
| BENZO(B)FLUORANTHENE                     |  | 0.031 J   | 0.062       | 0.027       | 0.055       | 0.048       | 0.16 U      | 0.11 J      | 0.039        | 0.088 J     |
| BENZO(G,H,I)PERYLENE                     |  | 0.057 J   | 0.088       | 0.031 J     | 0.035 J     | 0.071 J     | 0.16 UJ     | 0.078       | 0.047 J      | 0.074 J     |
| BENZO(K)FLUORANTHENE                     |  | 0.11 J    | 0.17        | 0.039       | 0.051       | 0.056       | 0.16 U      | 0.085       | 0.063        | 0.2         |
| BENZO(E)PYRENE                           |  | 0.097 J   | 0.11        | 0.045       | 0.085       | 0.24        | 0.31 J      | 0.13        | 0.072        | 0.18        |
| C1-CHRYSENES                             |  | 0.42 J    | 0.094 J     | 0.041 J     | 0.15 J      | 0.46 J      | 1.2 J       | 0.2 J       | 0.067 J      | 0.15 J      |
| C1-FLUORANTHENES/PYRENES                 |  | 0.54 J    | 0.12 J      | 0.0051 U    | 0.09 J      | 0.23 J      | 1.6 J       | 0.22 J      | 0.081 J      | 0.18 J      |
| C1-FLUORENES                             |  | 0.16 J    | 0.023 J     | 0.018 J     | 0.0051 U    | 0.0053 U    | 0.53 J      | 0.036 J     | 0.036 J      | 0.085 J     |
| C1-NAPHTHALENES                          |  | 0.14 J    | 0.011 J     | 0.0051 U    | 0.027 J     | 0.063 J     | 0.42 J      | 0.023 J     | 0.0059 U     | 0.012 J     |
| C1-PHENANTHRENES/ANTHRACENES             |  | 0.61 J    | 0.052 J     | 0.024 J     | 0.093 J     | 0.29 J      | 1.9 J       | 0.17 J      | 0.037 J      | 0.073 J     |
| C2-CHRYSENES                             |  | 0.21 J    | 0.05 J      | 0.0051 U    | 0.1 J       | 0.0053 U    | 0.0033 U    | 0.16 J      | 0.044 J      | 0.091 J     |
| C2-FLUORANTHENES/PYRENES                 |  | 0.27 J    | 0.12 J      | 0.0051 U    | 0.0051 U    | 0.19 J      | 0.66 J      | 0.14 J      | 0.075 J      | 0.13 J      |
| C2-FLUORENES                             |  | 0.18 J    | 0.0058 U    | 0.015 J     | 0.11 J      | 0.28 J      | 0.29 J      | 0.066 J     | 0.018 J      | 0.057 J     |
| C2-NAPHTHALENES                          |  | 0.28 J    | 0.0058 U    | 0.0051 U    | 0.072 J     | 0.22 J      | 0.82 J      | 0.045 J     | 0.0059 U     | 0.028 J     |
| C2-PHENANTHRENES/ANTHRACENES             |  | 0.54 J    | 0.048 J     | 0.022 J     | 0.14 J      | 0.34 J      | 1.1 J       | 0.22 J      | 0.034 J      | 0.1 J       |
| C3-CHRYSENES                             |  | 0.11 J    | 0.027 J     | 0.0051 U    | 0.0051 U    | 0.0053 U    | 0.0033 U    | 0.0032 U    | 0.018 J      | 0.005 U     |
| C3-FLUORANTHENES/PYRENES                 |  | 0.093 J   | 0.038 J     | 0.016 J     | 0.033 J     | 0.12 J      | 0.2 J       | 0.072 J     | 0.028 J      | 0.036 J     |
| C3-FLUORENES                             |  | 0.2 J     | 0.0058 U    | 0.0051 U    | 0.0051 U    | 0.38 J      | 0.25 J      | 0.0032 U    | 0.0059 U     | 0.005 U     |
| C3-NAPHTHALENES                          |  | 0.35 J    | 0.0058 U    | 0.0051 U    | 0.12 J      | 0.36 J      | 0.81 J      | 0.065 J     | 0.0059 U     | 0.036 J     |
| C3-PHENANTHRENES/ANTHRACENES             |  | 0.41 J    | 0.059 J     | 0.0051 U    | 0.0051 U    | 0.41 J      | 0.54 J      | 0.21 J      | 0.0059 U     | 0.14 J      |
| C4-CHRYSENES                             |  | 0.032 J   | 0.0058 U    | 0.0051 U    | 0.0051 U    | 0.0053 U    | 0.0033 U    | 0.0032 U    | 0.0059 U     | 0.005 U     |
| C4-NAPHTHALENES                          |  | 0.39 J    | 0.0058 U    | 0.0051 U    | 0.19 J      | 0.63 J      | 0.46 J      | 0.094 J     | 0.0059 U     | 0.005 U     |
| C4-PHENANTHRENES/ANTHRACENES             |  | 0.3 J     | 0.057 J     | 0.0051 U    | 0.092 J     | 0.13 J      | 0.19 J      | 0.17 J      | 0.0059 U     | 0.2 J       |
| CHRYSENE                                 |  | 0.45 J    | 0.18        | 0.066       | 0.13        | 0.21        | 0.51 J      | 0.16        | 0.13         | 0.2         |
| DIBENZ(A,H)ANTHRACENE                    |  | 0.015 J   | 0.026       | 0.0051 U    | 0.0051 U    | 0.011       | 0.054 J     | 0.014       | 0.017        | 0.021       |
| FLUORANTHENE                             |  | 0.71 J    | 0.31        | 0.097       | 0.14        | 0.21        | 1.6 J       | 0.21        | 0.19         | 0.33        |
| FLUORENE                                 |  | 0.17 J    | 0.017       | 0.0051 U    | 0.015       | 0.045       | 0.43 J      | 0.022       | 0.0059 U     | 0.015       |
| INDENO(1,2,3-C,D)PYRENE                  |  | 0.052 J   | 0.076       | 0.026       | 0.023       | 0.028       | 0.16 UJ     | 0.039       | 0.041        | 0.059       |
| NAPHTHALENE                              |  | 0.041 J   | 0.0058 U    | 0.0051 U    | 0.0051 U    | 0.01 J      | 0.16 U      | 0.011       | 0.0059 U     | 0.0091 J    |
| PERYLENE                                 |  | 0.026 J   | 0.021       | 0.0051 U    | 0.0051 U    | 0.011       | 0.16 U      | 0.023       | 0.014        | 0.036       |
| PHENANTHRENE                             |  | 0.79 J    | 0.1         | 0.037       | 0.071       | 0.15        | 2.3 J       | 0.12        | 0.067        | 0.093       |
| PYRENE                                   |  | 0.89 J    | 0.31        | 0.079       | 0.17        | 0.27        | 1.2 J       | 0.26        | 0.21         | 0.35        |
| PAHs (total)                             |  | 4.3 J     | 1.7 J       | 0.52 J      | 0.87 J      | 1.5 J       | 8.4 J       | 1.4 J       | 1 J          | 1.8 J       |

Key at the end of Table

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID R2-008-V-Z1P R2-008-V-Z2 R2-008-V-Z3 R2-008-V-Z4 R2-008-V-Z5 R2-011-V-Z1a R2-011-V-Z1b R2-011-V-Z2 R2-011-V-Z3 |  |           |           |           |           |           |           |           |           |           |           |           |
|--------------------------------------------------------------------------------------------------------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample Date                                                                                                              |  | 5/19/2010 | 5/19/2010 | 5/19/2010 | 5/19/2010 | 5/19/2010 | 5/19/2010 | 5/19/2010 | 5/25/2010 | 5/25/2010 | 5/25/2010 | 5/25/2010 |
| Sample Depth Range (ft)                                                                                                  |  | 0-1       | 1-2       | 2-3       | 3-4       | 40638-5   | 0-0.5     | 0.5-1     | 1-2       | 2-3       |           |           |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                                 |  |           |           |           |           |           |           |           |           |           |           |           |
| 1-METHYLNAPHTHALENE                                                                                                      |  | 0.0053 U  | 0.0044 U  | 0.056     | 0.024     | 0.0021 U  | 0.023 U   | 0.0054 J  | 0.0044 U  | 0.0095 J  |           |           |
| 2-METHYLNAPHTHALENE                                                                                                      |  | 0.011     | 0.0091    | 0.021     | 0.027     | 0.0021 U  | 0.023 U   | 0.0085 J  | 0.0044 U  | 0.0041 U  |           |           |
| ACENAPHTHENE                                                                                                             |  | 0.0053 U  | 0.0044 U  | 0.021     | 0.027     | 0.0021 U  | 0.023 U   | 0.0054 J  | 0.0044 U  | 0.01      |           |           |
| ACENAPHTHYLENE                                                                                                           |  | 0.032     | 0.024     | 0.034     | 0.032     | 0.011     | 0.023 U   | 0.013     | 0.0044 U  | 0.027     |           |           |
| ANTHRACENE                                                                                                               |  | 0.022     | 0.011     | 0.049 U   | 0.074     | 0.0021 U  | 0.012     | 0.028     | 0.021     | 0.043     |           |           |
| BENZO(A)ANTHRACENE                                                                                                       |  | 0.17      | 0.078     | 0.21      | 0.3 J     | 0.0059    | 0.13      | 0.18      | 0.19 J    | 0.2       |           |           |
| BENZO(A)PYRENE                                                                                                           |  | 0.23      | 0.074     | 0.26      | 0.33 J    | 0.0052    | 0.1       | 0.17      | 0.073     | 0.2       |           |           |
| BENZO(B)FLUORANTHENE                                                                                                     |  | 0.33 J    | 0.051     | 0.07      | 0.13 J    | 0.0021 U  | 0.11      | 0.14      | 0.2 J     | 0.13      |           |           |
| BENZO(G,H,I)PERYLENE                                                                                                     |  | 0.1 J     | 0.041 J   | 0.12      | 0.17 J    | 0.0021 UJ | 0.047 J   | 0.026     | 0.055 J   | 0.021     |           |           |
| BENZO(K)FLUORANTHENE                                                                                                     |  | 0.26      | 0.057     | 0.093     | 0.39 J    | 0.0045    | 0.077     | 0.13      | 0.058     | 0.15      |           |           |
| BENZO(E)PYRENE                                                                                                           |  | 0.23      | 0.1       | 0.36      | 0.34 J    | 0.006     | 0.081     | 0.14      | 0.16 J    | 0.2       |           |           |
| C1-CHRYSENES                                                                                                             |  | 0.14 J    | 0.18 J    | 0.82 J    | 0.35 J    | 0.0058 J  | 0.092 J   | 0.17 J    | 0.098 J   | 0.23 J    |           |           |
| C1-FLUORANTHENES/PYRENES                                                                                                 |  | 0.18 J    | 0.099 J   | 0.29 J    | 0.37 J    | 0.0085 J  | 0.16 J    | 0.22 J    | 0.15 J    | 0.38 J    |           |           |
| C1-FLUORENES                                                                                                             |  | 0.042 J   | 0.05 J    | 0.0049 U  | 0.0044 U  | 0.012 J   | 0.023 U   | 0.009 J   | 0.0044 U  | 0.036 J   |           |           |
| C1-NAPHTHALENES                                                                                                          |  | 0.013 J   | 0.012 J   | 0.05 J    | 0.042 J   | 0.0021 U  | 0.023 U   | 0.01 J    | 0.0044 U  | 0.02 J    |           |           |
| C1-PHENANTHRENES/ANTHRACENES                                                                                             |  | 0.09 J    | 0.084 J   | 0.27 J    | 0.38 J    | 0.0068 J  | 0.062 J   | 0.068 J   | 0.06 J    | 0.093 J   |           |           |
| C2-CHRYSENES                                                                                                             |  | 0.088 J   | 0.094 J   | 0.61 J    | 0.31 J    | 0.0021 U  | 0.023 U   | 0.0029 U  | 0.11 J    | 0.17 J    |           |           |
| C2-FLUORANTHENES/PYRENES                                                                                                 |  | 0.16 J    | 0.071 J   | 0.22 J    | 0.33 J    | 0.0054 J  | 0.083 J   | 0.17 J    | 0.091 J   | 0.32 J    |           |           |
| C2-FLUORENES                                                                                                             |  | 0.025 J   | 0.096 J   | 0.38 J    | 0.0044 U  | 0.0021 U  | 0.023 U   | 0.024 J   | 0.0044 U  | 0.1 J     |           |           |
| C2-NAPHTHALENES                                                                                                          |  | 0.022 J   | 0.049 J   | 0.36 J    | 0.2 J     | 0.0021 U  | 0.023 U   | 0.038 J   | 0.0044 U  | 0.0041 U  |           |           |
| C2-PHENANTHRENES/ANTHRACENES                                                                                             |  | 0.068 J   | 0.14 J    | 0.44 J    | 0.59 J    | 0.011 J   | 0.05 J    | 0.059 J   | 0.061 J   | 0.18 J    |           |           |
| C3-CHRYSENES                                                                                                             |  | 0.0053 U  | 0.0044 U  | 0.0049 U  | 0.0044 U  | 0.0021 U  | 0.023 U   | 0.098 J   | 0.054 J   | 0.17 J    |           |           |
| C3-FLUORANTHENES/PYRENES                                                                                                 |  | 0.039 J   | 0.036 J   | 0.16 J    | 0.2 J     | 0.0021 U  | 0.04 J    | 0.16 J    | 0.048 J   | 0.22 J    |           |           |
| C3-FLUORENES                                                                                                             |  | 0.0053 U  | 0.12 J    | 0.45 J    | 0.0044 U  | 0.0021 U  | 0.023 U   | 0.0029 U  | 0.0044 U  | 0.0041 U  |           |           |
| C3-NAPHTHALENES                                                                                                          |  | 0.024 J   | 0.11 J    | 0.76 J    | 0.59 J    | 0.0081 J  | 0.023 U   | 0.022 J   | 0.0044 U  | 0.11 J    |           |           |
| C3-PHENANTHRENES/ANTHRACENES                                                                                             |  | 0.13 J    | 0.18 J    | 0.32 J    | 0.64 J    | 0.0021 U  | 0.042 J   | 0.058 J   | 0.056 J   | 0.22 J    |           |           |
| C4-CHRYSENES                                                                                                             |  | 0.0053 U  | 0.0044 U  | 0.0049 U  | 0.0044 U  | 0.0021 U  | 0.023 U   | 0.036 J   | 0.0044 U  | 0.087 J   |           |           |
| C4-NAPHTHALENES                                                                                                          |  | 0.023 J   | 0.26 J    | 1.3 J     | 1.1 J     | 0.011 J   | 0.023 U   | 0.025 J   | 0.0044 U  | 0.28 J    |           |           |
| C4-PHENANTHRENES/ANTHRACENES                                                                                             |  | 0.071 J   | 0.0044 U  | 0.21 J    | 0.38 J    | 0.0045 J  | 0.034 J   | 0.0029 U  | 0.0044 U  | 0.0041 UJ |           |           |
| CHRYSENE                                                                                                                 |  | 0.25      | 0.11      | 0.4       | 0.45 J    | 0.0075    | 0.15      | 0.2       | 0.21 J    | 0.25      |           |           |
| DIBENZ(A,H)ANTHRACENE                                                                                                    |  | 0.028     | 0.0094    | 0.023     | 0.068     | 0.0021 U  | 0.039 J   | 0.017     | 0.045 J   | 0.012     |           |           |
| FLUORANTHENE                                                                                                             |  | 0.36      | 0.16      | 0.37      | 0.69 J    | 0.011     | 0.25      | 0.34      | 0.34 J    | 0.45      |           |           |
| FLUORENE                                                                                                                 |  | 0.014     | 0.019     | 0.059     | 0.076     | 0.0021 U  | 0.023 U   | 0.0093    | 0.01      | 0.021     |           |           |
| INDENO(1,2,3-C,D)PYRENE                                                                                                  |  | 0.089     | 0.028     | 0.046     | 0.17 J    | 0.0021 U  | 0.045 J   | 0.031     | 0.043 J   | 0.023     |           |           |
| NAPHTHALENE                                                                                                              |  | 0.011     | 0.0044 U  | 0.012     | 0.021     | 0.0021 U  | 0.023 U   | 0.0062    | 0.0044 U  | 0.01      |           |           |
| PERYLENE                                                                                                                 |  | 0.05      | 0.013     | 0.018     | 0.059     | 0.014     | 0.024     | 0.036     | 0.03      | 0.032     |           |           |
| PHENANTHRENE                                                                                                             |  | 0.11      | 0.063     | 0.25      | 0.42 J    | 0.0051    | 0.069     | 0.088 J   | 0.071     | 0.12      |           |           |
| PYRENE                                                                                                                   |  | 0.43      | 0.16      | 0.44      | 0.88 J    | 0.012     | 0.14      | 0.16      | 0.19 J    | 0.19      |           |           |
| PAHs (total)                                                                                                             |  | 2.4 J     | 0.89 J    | 2.4 J     | 4.2 J     | 0.062 J   | 1.2 J     | 1.5 J     | 1.5 J     | 1.9 J     |           |           |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |          | R2-011-V-Z4 | R2-011-V-Z5 | R2-011-V-Z6 | R2-011-V-Z7 | R2-011-V-Z8 | R2-014-VR | R2-014-V-Z1a | R2-014-V-Z1b | R2-014-V-Z2 |
|------------------------------------------|----------|-------------|-------------|-------------|-------------|-------------|-----------|--------------|--------------|-------------|
| Sample Date                              |          | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010   | 5/25/2010 | 5/25/2010    | 5/25/2010    | 5/25/2010   |
| Sample Depth Range (ft)                  |          | 3-4         | 4-6         | 6-8         | 8-10        | 10-11.5     | 4-6       | 0-0.5        | 0.5-1        | 1-2         |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |          |             |             |             |             |             |           |              |              |             |
| 1-METHYLNAPHTHALENE                      | 0.016 J  | 0.07 J      | 0.074 J     | 0.075 J     | 0.083 J     | 0.083 J     | 0.013 J   | 0.014 J      | 0.012 J      | 0.011 J     |
| 2-METHYLNAPHTHALENE                      | 0.028    | 0.1 J       | 0.058       | 0.083 J     | 0.081 J     | 0.081 J     | 0.022 J   | 0.023        | 0.019 J      | 0.019       |
| ACENAPHTHENE                             | 0.015    | 0.024       | 0.042       | 0.035       | 0.023       | 0.023       | 0.0058 U  | 0.021        | 0.013        | 0.01        |
| ACENAPHTHYLENE                           | 0.026    | 0.032       | 0.086 U     | 0.054       | 0.045       | 0.045       | 0.024 J   | 0.026        | 0.027        | 0.025       |
| ANTHRACENE                               | 0.037    | 0.059 J     | 0.2         | 0.11 J      | 0.1 J       | 0.1 J       | 0.032 J   | 0.091        | 0.08         | 0.041       |
| BENZO(A)ANTHRACENE                       | 0.24     | 0.36        | 0.55        | 0.31        | 0.31        | 0.31        | 0.12 J    | 0.39         | 0.42         | 0.26        |
| BENZO(A)PYRENE                           | 0.2      | 0.39        | 0.43        | 0.29        | 0.3         | 0.3         | 0.11 J    | 0.31         | 0.3          | 0.27        |
| BENZO(B)FLUORANTHENE                     | 0.24     | 0.25        | 0.54        | 0.17        | 0.26        | 0.26        | 0.068 J   | 0.21         | 0.18         | 0.2         |
| BENZO(G,H,I)PERYLENE                     | 0.03     | 0.087       | 0.058       | 0.036       | 0.06        | 0.06        | 0.043 J   | 0.032        | 0.037        | 0.03        |
| BENZO(K)FLUORANTHENE                     | 0.18     | 0.17        | 0.31        | 0.25        | 0.18        | 0.18        | 0.064 J   | 0.2          | 0.18         | 0.17        |
| BENZO(E)PYRENE                           | 0.18     | 0.5         | 0.38        | 0.2         | 0.36        | 0.36        | 0.13 J    | 0.25         | 0.29         | 0.26        |
| C1-CHRYSENES                             | 0.26 J   | 1.5 J       | 0.63 J      | 0.43 J      | 0.88 J      | 0.88 J      | 0.24 J    | 0.59 J       | 0.48 J       | 0.39 J      |
| C1-FLUORANTHENE/PYRENES                  | 0.42 J   | 0.97 J      | 0.94 J      | 1.1 J       | 0.7 J       | 0.7 J       | 0.26 J    | 0.75 J       | 0.69 J       | 0.49 J      |
| C1-FLUORENES                             | 0.048 J  | 0.29 J      | 0.19 J      | 0.2 J       | 0.17 J      | 0.17 J      | 0.031 J   | 0.088 J      | 0.032 J      | 0.056 J     |
| C1-NAPHTHALENES                          | 0.034 J  | 0.24 J      | 0.1 J       | 0.11 J      | 0.12 J      | 0.12 J      | 0.025 J   | 0.027 J      | 0.024 J      | 0.024 J     |
| C1-PHENANTHRENE/ANTHRACENES              | 0.19 J   | 0.61 J      | 0.63 J      | 0.62 J      | 0.52 J      | 0.52 J      | 0.079 J   | 0.24 J       | 0.19 J       | 0.12 J      |
| C2-CHRYSENES                             | 0.28 J   | 1.4 J       | 0.45 J      | 0.24 J      | 0.69 J      | 0.69 J      | 0.24 J    | 0.21 J       | 0.24 J       | 0.19 J      |
| C2-FLUORANTHENE/PYRENES                  | 0.31 J   | 1.2 J       | 0.8 J       | 0.72 J      | 0.64 J      | 0.64 J      | 0.27 J    | 0.48 J       | 0.44 J       | 0.35 J      |
| C2-FLUORENES                             | 0.24 J   | 0.95 J      | 0.48 J      | 0.42 J      | 0.41 J      | 0.41 J      | 0.018 J   | 0.063 J      | 0.063 J      | 0.093 J     |
| C2-NAPHTHALENES                          | 0.2 J    | 1.4 J       | 0.75 J      | 0.92 J      | 0.83 J      | 0.83 J      | 0.054 J   | 0.11 J       | 0.077 J      | 0.11 J      |
| C2-PHENANTHRENE/ANTHRACENES              | 0.38 J   | 1.5 J       | 1.2 J       | 1 J         | 0.88 J      | 0.88 J      | 0.13 J    | 0.29 J       | 0.22 J       | 0.18 J      |
| C3-CHRYSENES                             | 0.2 J    | 0.87 J      | 0.31 J      | 0.16 J      | 0.46 J      | 0.46 J      | 0.26 J    | 0.12 J       | 0.19 J       | 0.13 J      |
| C3-FLUORANTHENE/PYRENES                  | 0.22 J   | 0.91 J      | 0.51 J      | 0.42 J      | 0.42 J      | 0.42 J      | 0.28 J    | 0.22 J       | 0.28 J       | 0.19 J      |
| C3-FLUORENES                             | 0.0038 U | 2.6 J       | 1.6 J       | 0.91 J      | 0.82 J      | 0.82 J      | 0.11 J    | 0.12 J       | 0.17 J       | 0.28 J      |
| C3-NAPHTHALENES                          | 1.1 J    | 5.1 J       | 2.8 J       | 3 J         | 3.8 J       | 3.8 J       | 0.089 J   | 0.15 J       | 0.11 J       | 0.15 J      |
| C3-PHENANTHRENE/ANTHRACENES              | 0.45 J   | 1.4 J       | 1.2 J       | 1.3 J       | 0.81 J      | 0.81 J      | 0.15 J    | 0.21 J       | 0.19 J       | 0.24 J      |
| C4-CHRYSENES                             | 0.078 J  | 0.39 J      | 0.079 J     | 0.085 J     | 0.15 J      | 0.15 J      | 0.18 J    | 0.0059 U     | 0.082 J      | 0.068 J     |
| C4-NAPHTHALENES                          | 0.81 J   | 10 J        | 4.1 J       | 3.5 J       | 4.3 J       | 4.3 J       | 0.087 J   | 0.22 J       | 0.13 J       | 0.33 J      |
| C4-PHENANTHRENE/ANTHRACENES              | 0.17 J   | 1 J         | 0.89 J      | 0.71 J      | 0.52 J      | 0.52 J      | 0.058 J   | 0.21 J       | 0.0046 U     | 0.14 J      |
| CHRYSENE                                 | 0.32     | 0.57        | 0.66        | 0.4         | 0.49        | 0.49        | 0.12 J    | 0.3          | 0.42         | 0.31        |
| DIBENZ(A,H)ANTHRACENE                    | 0.021    | 0.025       | 0.012       | 0.012       | 0.018       | 0.018       | 0.0058 U  | 0.017        | 0.019        | 0.01        |
| FLUORANTHENE                             | 0.52     | 0.39        | 1.2         | 0.67        | 0.68        | 0.68        | 0.15 J    | 0.72         | 0.48         | 0.43        |
| FLUORENE                                 | 0.022    | 0.06        | 0.085       | 0.071       | 0.057       | 0.057       | 0.012 J   | 0.034        | 0.027        | 0.022       |
| INDENO(1,2,3-C,D)PYRENE                  | 0.035    | 0.045       | 0.053       | 0.04        | 0.043       | 0.043       | 0.023 J   | 0.042        | 0.04         | 0.029       |
| NAPHTHALENE                              | 0.012    | 0.023       | 0.032       | 0.022       | 0.025       | 0.025       | 0.015 J   | 0.016        | 0.013        | 0.01        |
| PERYLENE                                 | 0.043    | 0.082 J     | 0.061       | 0.061       | 0.049       | 0.049       | 0.036 J   | 0.06         | 0.052        | 0.044       |
| PHENANTHRENE                             | 0.17     | 0.21        | 0.47 J      | 0.34        | 0.35        | 0.35        | 0.056 J   | 0.23         | 0.12         | 0.11        |
| PYRENE                                   | 0.27     | 0.27        | 0.54        | 0.38        | 0.34        | 0.34        | 0.083 J   | 0.38         | 0.21         | 0.22        |
| PAHs (total)                             | 2.3 J    | 3 J         | 5.2 J       | 3.2 J       | 3.3 J       | 3.3 J       | 0.92 J    | 3 J          | 2.6 J        | 2.1 J       |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID R2-014-V-Z3 R2-014-V-Z4 R2-014-V-Z5 R2-014-V-Z6 R2-014-V-Z7 R3-020-V-Z1a R3-020-V-Z1b R3-020-V-Z2 R3-020-V-Z3 |         |           |           |           |           |           |           |           |           |           |           |           |
|-------------------------------------------------------------------------------------------------------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample Date                                                                                                             |         | 5/25/2010 | 5/25/2010 | 5/25/2010 | 5/25/2010 | 5/25/2010 | 5/25/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 |
| Sample Depth Range (ft)                                                                                                 |         | 2-3       | 3-4       | 4-6       | 6-8       | 8-10      | 0-0.5     | 0.5-1     | 1-2       | 2-3       |           |           |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                                |         |           |           |           |           |           |           |           |           |           |           |           |
| 1-METHYLNAPHTHALENE                                                                                                     | 0.032 J | 0.23 J    | 0.18 J    | 0.069 J   | 0.05 J    | 0.0096 J  | 0.0047 UJ | 0.016 J   | 0.021 J   |           |           |           |
| 2-METHYLNAPHTHALENE                                                                                                     | 0.063   | 0.36 J    | 0.17 J    | 0.087 U   | 0.065 J   | 0.009     | 0.0094    | 0.019     | 0.025     |           |           |           |
| ACENAPHTHENE                                                                                                            | 0.016   | 0.041     | 0.055 J   | 0.036     | 0.053     | 0.019     | 0.0097    | 0.014     | 0.013 J   |           |           |           |
| ACENAPHTHYLENE                                                                                                          | 0.033   | 0.066     | 0.081 J   | 0.082     | 0.043     | 0.017     | 0.012     | 0.02      | 0.025     |           |           |           |
| ANTHRACENE                                                                                                              | 0.046   | 0.059 J   | 0.19 J    | 0.17 J    | 0.3       | 0.064     | 0.025     | 0.036     | 0.029     |           |           |           |
| BENZO(A)ANTHRACENE                                                                                                      | 0.47    | 0.84      | 0.66 J    | 0.39      | 0.74      | 0.32      | 0.11      | 0.25      | 0.26      |           |           |           |
| BENZO(A)PYRENE                                                                                                          | 0.57    | 0.8       | 0.6 J     | 0.31      | 0.7       | 0.25      | 0.09      | 0.24      | 0.21      |           |           |           |
| BENZO(B)FLUORANTHENE                                                                                                    | 0.18    | 0.52      | 0.58 J    | 0.23      | 0.33      | 0.17      | 0.082     | 0.13      | 0.11      |           |           |           |
| BENZO(G,H,I)PERYLENE                                                                                                    | 0.069   | 0.088     | 0.098 J   | 0.047     | 0.18      | 0.026     | 0.016     | 0.028     | 0.044     |           |           |           |
| BENZO(K)FLUORANTHENE                                                                                                    | 0.28    | 0.29      | 0.29 J    | 0.25      | 0.41      | 0.14      | 0.066     | 0.081     | 0.1       |           |           |           |
| BENZO(E)PYRENE                                                                                                          | 0.62    | 0.91      | 0.72 J    | 0.33      | 0.62      | 0.18      | 0.077     | 0.28      | 0.28      |           |           |           |
| C1-CHRYSENES                                                                                                            | 1.4 J   | 1.9 J     | 1.6 J     | 0.39 J    | 0.97 J    | 0.41 J    | 0.18 J    | 1.1 J     | 0.89 J    |           |           |           |
| C1-FLUORANTHENE/PYRENES                                                                                                 | 0.81 J  | 1.2 J     | 1.2 J     | 0.92 J    | 1.6 J     | 0.64 J    | 0.42 J    | 0.89 J    | 0.77 J    |           |           |           |
| C1-FLUORENES                                                                                                            | 0.62 J  | 0.48 J    | 0.35 J    | 0.18 J    | 0.13 J    | 0.044 J   | 0.06 J    | 0.12 J    | 0.092 J   |           |           |           |
| C1-NAPHTHALENES                                                                                                         | 0.07 J  | 0.41 J    | 0.25 J    | 0.12 J    | 0.081 J   | 0.014 J   | 0.014 J   | 0.031 J   | 0.036 J   |           |           |           |
| C1-PHENANTHRENE/ANTHRACENES                                                                                             | 0.27 J  | 0.59 J    | 0.93 J    | 0.6 J     | 0.89 J    | 0.24 J    | 0.26 J    | 0.65 J    | 0.24 J    |           |           |           |
| C2-CHRYSENES                                                                                                            | 1.1 J   | 1.8 J     | 1.4 J     | 0.25 J    | 0.92 J    | 0.14 J    | 0.12 J    | 0.91 J    | 0.82 J    |           |           |           |
| C2-FLUORANTHENE/PYRENES                                                                                                 | 0.92 J  | 1.6 J     | 1.1 J     | 0.75 J    | 1.2 J     | 0.37 J    | 0.56 J    | 0.87 J    | 0.74 J    |           |           |           |
| C2-FLUORENES                                                                                                            | 0.42 J  | 2.9 J     | 0.98 J    | 0.61 J    | 0.34 J    | 0.05 J    | 0.2 J     | 0.42 J    | 0.37 J    |           |           |           |
| C2-NAPHTHALENES                                                                                                         | 0.37 J  | 1.9 J     | 1.6 J     | 0.69 J    | 0.32 J    | 0.047 J   | 0.076 J   | 0.2 J     | 0.24 J    |           |           |           |
| C2-PHENANTHRENE/ANTHRACENES                                                                                             | 0.72 J  | 1.2 J     | 1.7 J     | 1.2 J     | 1.3 J     | 0.22 J    | 0.47 J    | 0.7 J     | 0.57 J    |           |           |           |
| C3-CHRYSENES                                                                                                            | 0.74 J  | 1.1 J     | 0.82 J    | 0.18 J    | 0.62 J    | 0.069 J   | 0.079 J   | 0.51 J    | 0.58 J    |           |           |           |
| C3-FLUORANTHENE/PYRENES                                                                                                 | 0.59 J  | 1.3 J     | 0.73 J    | 0.69 J    | 1.3 J     | 0.11 J    | 1 J       | 0.69 J    | 0.67 J    |           |           |           |
| C3-FLUORENES                                                                                                            | 1.4 J   | 3.3 J     | 2.6 J     | 2 J       | 0.86 J    | 0.093 J   | 0.4 J     | 1.2 J     | 1.1 J     |           |           |           |
| C3-NAPHTHALENES                                                                                                         | 2.2 J   | 5.9 J     | 4.9 J     | 2.1 J     | 0.64 J    | 0.095 J   | 0.3 J     | 0.91 J    | 0.72 J    |           |           |           |
| C3-PHENANTHRENE/ANTHRACENES                                                                                             | 0.74 J  | 1.7 J     | 1.5 J     | 1.6 J     | 1.7 J     | 0.18 J    | 0.26 J    | 0.7 J     | 0.8 J     |           |           |           |
| C4-CHRYSENES                                                                                                            | 0.29 J  | 0.47 J    | 0.43 J    | 0.068 J   | 0.37 J    | 0.0039 U  | 0.0047 U  | 0.15 J    | 0.25 J    |           |           |           |
| C4-NAPHTHALENES                                                                                                         | 3.4 J   | 12 J      | 7.2 J     | 4.7 J     | 1 J       | 0.11 J    | 0.59 J    | 1.6 J     | 1.8 J     |           |           |           |
| C4-PHENANTHRENE/ANTHRACENES                                                                                             | 0.71 J  | 1.3 J     | 0.97 J    | 1.2 J     | 1.2 J     | 0.1 J     | 0.19 J    | 0.44 J    | 0.51 J    |           |           |           |
| CHRYSENE                                                                                                                | 0.64    | 1.2       | 0.9 J     | 0.48      | 0.85      | 0.33      | 0.13      | 0.42      | 0.42      |           |           |           |
| DIBENZ(A,H)ANTHRACENE                                                                                                   | 0.022   | 0.027     | 0.029 J   | 0.025     | 0.045     | 0.0086    | 0.0047 U  | 0.0055 U  | 0.014     |           |           |           |
| FLUORANTHENE                                                                                                            | 0.016   | 0.81      | 1.2 J     | 0.95      | 1.3       | 0.37      | 0.22      | 0.28      | 0.34      |           |           |           |
| FLUORENE                                                                                                                | 0.03    | 0.1       | 0.15 J    | 0.078     | 0.068 U   | 0.018     | 0.016     | 0.031     | 0.03      |           |           |           |
| INDENO(1,2,3-C,D)PYRENE                                                                                                 | 0.035   | 0.055     | 0.067 J   | 0.051     | 0.068 U   | 0.024     | 0.012     | 0.016     | 0.021     |           |           |           |
| NAPHTHALENE                                                                                                             | 0.018   | 0.061 J   | 0.044 J   | 0.023     | 0.033     | 0.0039 U  | 0.0047 U  | 0.0055 U  | 0.016     |           |           |           |
| PERYLENE                                                                                                                | 0.071   | 0.082 J   | 0.09 J    | 0.068     | 0.13 J    | 0.032     | 0.014     | 0.023     | 0.031     |           |           |           |
| PHENANTHRENE                                                                                                            | 0.081 J | 0.46      | 0.62 J    | 0.4 J     | 0.62 J    | 0.15 J    | 0.068 J   | 0.082 J   | 0.091 J   |           |           |           |
| PYRENE                                                                                                                  | 0.42    | 0.61      | 0.62 J    | 0.41      | 0.7       | 0.28      | 0.093     | 0.22      | 0.26      |           |           |           |
| PAHs (total)                                                                                                            | 2.9 J   | 6 J       | 6.2 J     | 3.9 J     | 6.3 J     | 2.2 J     | 0.95 J    | 1.8 J     | 2 J       |           |           |           |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID R3-020-V-Z4 R3-020-V-Z5 R3-020-V-Z6 R3-020-V-Z7 R3-023-V-Z1a R3-023-V-Z1b R3-026-V-Z1a R3-026-V-Z1b |  |           |           |           |           |           |           |           |           |           |           |           |
|---------------------------------------------------------------------------------------------------------------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sample Date                                                                                                   |  | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/26/2010 | 5/27/2010 | 5/27/2010 | 5/27/2010 |
| Sample Depth Range (ft)                                                                                       |  | 3-4       | 4-6       | 6-8       | 8-10      | 0-0.5     | 0.5-0.9   | 1-2       | 0-0.5     | 0-0.5     | 0-0.5     | 0.5-1     |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                      |  |           |           |           |           |           |           |           |           |           |           |           |
| 1-METHYLNAPHTHALENE                                                                                           |  | 0.1       | 0.1 U     | 0.096 U   | 0.034 U   | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.028     | 0.049     |           |           |
| 2-METHYLNAPHTHALENE                                                                                           |  | 0.083     | 0.1 U     | 0.096 U   | 0.034 U   | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.026     | 0.037     |           |           |
| ACENAPHTHENE                                                                                                  |  | 0.13 U    | 0.06      | 0.056     | 0.12      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.039 J   | 0.2       |           |           |
| ACENAPHTHYLENE                                                                                                |  | 0.13 U    | 0.1 U     | 0.096 U   | 0.034 U   | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.019     | 0.024     |           |           |
| ANTHRACENE                                                                                                    |  | 0.13 U    | 0.1 U     | 0.096 U   | 0.042 J   | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.2       | 0.3       |           |           |
| BENZO(A)ANTHRACENE                                                                                            |  | 0.73      | 0.58      | 0.48      | 0.44      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.61      | 0.85      |           |           |
| BENZO(A)PYRENE                                                                                                |  | 0.75      | 0.62      | 0.46      | 0.33      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.46      | 0.53      |           |           |
| BENZO(B)FLUORANTHENE                                                                                          |  | 1.1 J     | 1 J       | 0.67 J    | 0.4 J     | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.75 J    | 0.86 J    |           |           |
| BENZO(G,H,I)PERYLENE                                                                                          |  | 0.43      | 0.29      | 0.25      | 0.11      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.22      | 0.22      |           |           |
| BENZO(K)FLUORANTHENE                                                                                          |  | 0.58      | 0.51      | 0.34      | 0.23      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.36      | 0.45      |           |           |
| BENZO(E)PYRENE                                                                                                |  | 0.98      | 0.54      | 0.67      | 0.25      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.52      | 0.8       |           |           |
| C1-CHRYSENES                                                                                                  |  | 1.6 J     | 0.84 J    | 1.2 J     | 1.8 J     | 0.0021 U  | 0.0021 U  | 0.0023 U  | 1.4 J     | 1.7 J     |           |           |
| C1-FLUORANTHENES/PYRENES                                                                                      |  | 1.1 J     | 1.2 J     | 1.1 J     | 0.3 J     | 0.0021 U  | 0.0021 U  | 0.0023 U  | 1.2 J     | 0.65 J    |           |           |
| C1-FLUORENES                                                                                                  |  | 0.5 J     | 0.23 J    | 0.21 J    | 0.26 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.091 J   | 0.16 J    |           |           |
| C1-NAPHTHALENES                                                                                               |  | 0.14 J    | 0.2 J     | 0.16 J    | 0.14 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.045 J   | 0.066 J   |           |           |
| C1-PHENANTHRENES/ANTHRACENES                                                                                  |  | 0.85 J    | 1.1 J     | 0.73 J    | 0.23 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.66 J    | 0.47 J    |           |           |
| C2-CHRYSENES                                                                                                  |  | 1.2 J     | 0.52 J    | 1.4 J     | 1 J       | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.92 J    | 0.91 J    |           |           |
| C2-FLUORANTHENES/PYRENES                                                                                      |  | 0.8 J     | 0.9 J     | 0.85 J    | 0.16 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.72 J    | 0.42 J    |           |           |
| C2-FLUORENES                                                                                                  |  | 1 J       | 0.57 J    | 0.35 J    | 0.39 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.084 J   | 0.12 J    |           |           |
| C2-NAPHTHALENES                                                                                               |  | 1.6 J     | 1.9 J     | 0.76 J    | 0.29 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.12 J    | 0.18 J    |           |           |
| C2-PHENANTHRENES/ANTHRACENES                                                                                  |  | 1.5 J     | 1.9 J     | 1.3 J     | 0.27 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.77 J    | 0.45 J    |           |           |
| C3-CHRYSENES                                                                                                  |  | 0.89 J    | 0.25 J    | 0.37 J    | 0.34 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.23 J    | 0.24 J    |           |           |
| C3-FLUORANTHENES/PYRENES                                                                                      |  | 0.69 J    | 0.63 J    | 0.64 J    | 0.091 J   | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.51 J    | 0.23 J    |           |           |
| C3-FLUORENES                                                                                                  |  | 1.8 J     | 0.81 J    | 0.83 J    | 0.79 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.0094 J  | 0.34 J    |           |           |
| C3-NAPHTHALENES                                                                                               |  | 2.8 J     | 2.7 J     | 1.7 J     | 0.63 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.14 J    | 0.46 J    |           |           |
| C3-PHENANTHRENES/ANTHRACENES                                                                                  |  | 1.7 J     | 1.9 J     | 1.2 J     | 0.21 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.74 J    | 0.43 J    |           |           |
| C4-CHRYSENES                                                                                                  |  | 0.34 J    | 0.074 J   | 0.44 J    | 0.11 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.092 J   | 0.13 J    |           |           |
| C4-NAPHTHALENES                                                                                               |  | 5.2 J     | 3.3 J     | 1.6 J     | 0.49 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.17 J    | 0.27 J    |           |           |
| C4-PHENANTHRENES/ANTHRACENES                                                                                  |  | 0.88 J    | 1.7 J     | 0.83 J    | 0.14 J    | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.0044 U  | 0.14 J    |           |           |
| CHRYSENE                                                                                                      |  | 0.86      | 0.61      | 0.48      | 0.37      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.58      | 0.79      |           |           |
| DIBENZ(A,H)ANTHRACENE                                                                                         |  | 0.075     | 0.058     | 0.059     | 0.076     | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.079     | 0.086 U   |           |           |
| FLUORANTHENE                                                                                                  |  | 0.83      | 0.91      | 0.58      | 0.47      | 0.0048    | 0.0046    | 0.0053    | 0.61      | 0.96      |           |           |
| FLUORENE                                                                                                      |  | 0.13 UJ   | 0.1 UJ    | 0.096 UJ  | 0.034 UJ  | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.081     | 0.086 UJ  |           |           |
| INDENO(1,2,3-C,D)PYRENE                                                                                       |  | 0.32      | 0.26      | 0.19 J    | 0.09      | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.18      | 0.19      |           |           |
| NAPHTHALENE                                                                                                   |  | 0.056     | 0.051     | 0.049     | 0.052     | 0.0021 U  | 0.0021 U  | 0.0023 U  | 0.024     | 0.03      |           |           |
| PERYLENE                                                                                                      |  | 0.13 U    | 0.1 U     | 0.096 U   | 0.034 U   | 0.0089    | 0.012     | 0.0023 U  | 0.089 U   | 0.086 U   |           |           |
| PHENANTHRENE                                                                                                  |  | 0.86      | 0.61      | 0.49      | 0.47      | 0.0021 U  | 0.0021 U  | 0.0043 J  | 0.39      | 1         |           |           |
| PYRENE                                                                                                        |  | 1.1       | 0.96      | 0.78      | 0.68      | 0.0063    | 0.0044    | 0.0052    | 0.92      | 1.2       |           |           |
| PAHs (total)                                                                                                  |  | 7.7 J     | 6.5 J     | 4.9 J     | 3.9 J     | 0.011     | 0.009     | 0.015 J   | 5.5 J     | 7.6 J     |           |           |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |  | R3-026-V-Z2 |  | R3-026-V-Z3 |  | R3-026-V-Z4 |  | R4-135-C-Z1a |  | R4-137-C-Com |  | R4-138-C-Com |  | R4-139-C-Z1a |  | R4-141-C-Z1a |  |
|------------------------------------------|--|-------------|--|-------------|--|-------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|
| Sample Date                              |  | 5/27/2010   |  | 5/27/2010   |  | 5/27/2010   |  | 6/21/2010    |  | 6/21/2010    |  | 6/21/2010    |  | 6/22/2010    |  | 6/23/2010    |  |
| Sample Depth Range (ft)                  |  | 1-2         |  | 2-3         |  | 3-4         |  | 0-0.5        |  | 0-0.7        |  | 0-0.4        |  | 0-0.3        |  | 0-0.5        |  |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |             |  |             |  |             |  |              |  |              |  |              |  |              |  |              |  |
| 1-METHYLNAPHTHALENE                      |  | 0.0046 U    |  | 0.026       |  | 0.05 U      |  | 0.45         |  | 0.22         |  | 8.9 J        |  | 0.045        |  | 0.0072 J     |  |
| 2-METHYLNAPHTHALENE                      |  | 0.014       |  | 0.046       |  | 0.05 U      |  | 0.25         |  | 0.2          |  | 7.5 J        |  | 0.036        |  | 0.007 U      |  |
| ACENAPHTHENE                             |  | 0.012 J     |  | 0.048       |  | 0.05 U      |  | 1.2 J        |  | 0.46         |  | 13 J         |  | 0.28         |  | 0.031        |  |
| ACENAPHTHYLENE                           |  | 0.064       |  | 0.09        |  | 0.05 U      |  | 0.067        |  | 0.15         |  | 0.65         |  | 0.073        |  | 0.06         |  |
| ANTHRACENE                               |  | 0.038       |  | 0.053 J     |  | 0.17        |  | 2.2          |  | 1.2          |  | 5.2          |  | 1.8          |  | 0.13 J       |  |
| BENZO(A)ANTHRACENE                       |  | 0.54        |  | 0.56        |  | 0.43        |  | 1.8          |  | 2.6          |  | 7.5          |  | 1.7          |  | 0.5 J        |  |
| BENZO(A)PYRENE                           |  | 0.45        |  | 0.49        |  | 0.27        |  | 2.6          |  | 1.6          |  | 6.8          |  | 0.66         |  | 0.26 J       |  |
| BENZO(B)FLUORANTHENE                     |  | 0.68 J      |  | 0.5 J       |  | 0.32 J      |  | 1.6          |  | 1.3          |  | 5.2          |  | 0.38         |  | 0.25 J       |  |
| BENZO(G,H,I)PERYLENE                     |  | 0.064       |  | 0.21        |  | 0.12        |  | 2.1          |  | 1.5          |  | 4.9          |  | 0.48         |  | 0.2 J        |  |
| BENZO(K)FLUORANTHENE                     |  | 0.35        |  | 0.29        |  | 0.2         |  | 1.7          |  | 1.4          |  | 5.2          |  | 0.82         |  | 0.24 J       |  |
| BENZO(E)PYRENE                           |  | 0.64        |  | 0.72        |  | 0.35        |  | 2.9          |  | 2.5          |  | 8.1          |  | 0.73         |  | 0.34 J       |  |
| C1-CHRYSENES                             |  | 0.77 J      |  | 2.3 J       |  | 1.7 J       |  | 5.8 J        |  | 3.4 J        |  | 52 J         |  | 1.3 J        |  | 0.5 J        |  |
| C1-FLUORANTHENES/PYRENES                 |  | 0.36 J      |  | 0.62 J      |  | 1.1 J       |  | 7.1 J        |  | 3.1 J        |  | 97 J         |  | 1.5 J        |  | 0.64 J       |  |
| C1-FLUORENES                             |  | 0.054 J     |  | 0.31 J      |  | 0.3 J       |  | 0.86 J       |  | 0.28 J       |  | 4 J          |  | 0.1 J        |  | 0.046 J      |  |
| C1-NAPHTHALENES                          |  | 0.033 J     |  | 0.062 J     |  | 0.21 J      |  | 0.58 J       |  | 0.3 J        |  | 17 J         |  | 0.061 J      |  | 0.017 J      |  |
| C1-PHENANTHRENES/ANTHRACENES             |  | 0.13 J      |  | 0.41 J      |  | 0.96 J      |  | 6.5 J        |  | 1.6 J        |  | 110 J        |  | 0.59 J       |  | 0.28 J       |  |
| C2-CHRYSENES                             |  | 0.45 J      |  | 1.7 J       |  | 1.1 J       |  | 2.8 J        |  | 1.9 J        |  | 15 J         |  | 0.74 J       |  | 0.28 J       |  |
| C2-FLUORANTHENES/PYRENES                 |  | 0.34 J      |  | 0.55 J      |  | 0.89 J      |  | 2.5 J        |  | 1.3 J        |  | 32 J         |  | 0.57 J       |  | 0.27 J       |  |
| C2-FLUORENES                             |  | 0.064 J     |  | 0.7 J       |  | 0.44 J      |  | 0.86 J       |  | 0.32 J       |  | 3.7 J        |  | 0.13 J       |  | 0.049 J      |  |
| C2-NAPHTHALENES                          |  | 0.13 J      |  | 0.73 J      |  | 1.4 J       |  | 1.3 J        |  | 0.32 J       |  | 26 J         |  | 0.1 J        |  | 0.029 J      |  |
| C2-PHENANTHRENES/ANTHRACENES             |  | 0.22 J      |  | 0.65 J      |  | 1.3 J       |  | 4 J          |  | 1.1 J        |  | 56 J         |  | 0.33 J       |  | 0.22 J       |  |
| C3-CHRYSENES                             |  | 0.28 J      |  | 0.98 J      |  | 0.5 J       |  | 1.1 J        |  | 0.96 J       |  | 8.4 J        |  | 0.49 J       |  | 0.095 J      |  |
| C3-FLUORANTHENES/PYRENES                 |  | 0.24 J      |  | 0.75 J      |  | 0.73 J      |  | 1.2 J        |  | 0.68 J       |  | 16 J         |  | 0.35 J       |  | 0.15 J       |  |
| C3-FLUORENES                             |  | 0.19 J      |  | 1.3 J       |  | 1.1 J       |  | 0.65 J       |  | 0.21 J       |  | 3.7 J        |  | 0.16 J       |  | 0.007 U      |  |
| C3-NAPHTHALENES                          |  | 0.11 J      |  | 1.4 J       |  | 3.2 J       |  | 1.4 J        |  | 0.39 J       |  | 24 J         |  | 0.13 J       |  | 0.051 J      |  |
| C3-PHENANTHRENES/ANTHRACENES             |  | 0.52 J      |  | 1.1 J       |  | 0.99 J      |  | 2 J          |  | 0.73 J       |  | 26 J         |  | 0.3 J        |  | 0.12 J       |  |
| C4-CHRYSENES                             |  | 0.13 J      |  | 0.32 J      |  | 0.23 J      |  | 0.01 U       |  | 0.1 J        |  | 1.5 J        |  | 0.083 J      |  | 0.078 U      |  |
| C4-NAPHTHALENES                          |  | 0.25 J      |  | 2.7 J       |  | 3.8 J       |  | 0.97 J       |  | 0.23 J       |  | 10 J         |  | 0.24 J       |  | 0.007 U      |  |
| C4-PHENANTHRENES/ANTHRACENES             |  | 0.2 J       |  | 0.59 J      |  | 0.53 J      |  | 0.74 J       |  | 0.27 J       |  | 4.6 J        |  | 0.2 J        |  | 0.07 J       |  |
| CHRYSENE                                 |  | 0.57        |  | 0.72        |  | 0.44        |  | 2.8          |  | 3.7          |  | 11           |  | 2.2          |  | 0.65 J       |  |
| DIBENZ(A,H)ANTHRACENE                    |  | 0.026       |  | 0.096       |  | 0.05 U      |  | 0.52         |  | 0.63         |  | 2.7 J        |  | 0.088        |  | 0.028        |  |
| FLUORANTHENE                             |  | 0.56        |  | 0.5         |  | 0.45        |  | 3            |  | 4            |  | 51 J         |  | 4.7          |  | 0.49         |  |
| FLUORENE                                 |  | 0.04        |  | 0.055 UJ    |  | 0.05 UJ     |  | 0.91         |  | 0.56         |  | 11 J         |  | 0.32         |  | 0.024        |  |
| INDENO(1,2,3-C,D)PYRENE                  |  | 0.05        |  | 0.12        |  | 0.05 U      |  | 0.63         |  | 1.2          |  | 4 J          |  | 0.44         |  | 0.056        |  |
| NAPHTHALENE                              |  | 0.015       |  | 0.062       |  | 0.05 U      |  | 0.13         |  | 0.19         |  | 5.1 J        |  | 0.013        |  | 0.0087       |  |
| PERYLENE                                 |  | 0.034       |  | 0.055 U     |  | 0.05 U      |  | 0.43         |  | 0.82         |  | 3.8 J        |  | 0.28         |  | 0.054        |  |
| PHENANTHRENE                             |  | 0.28        |  | 0.52        |  | 0.41        |  | 3.3          |  | 1.9          |  | 73 J         |  | 2.8          |  | 0.25 J       |  |
| PYRENE                                   |  | 0.67        |  | 0.87        |  | 0.7         |  | 4.2          |  | 3.8          |  | 44 J         |  | 3.2          |  | 0.57 J       |  |
| PAHs (total)                             |  | 4.4 J       |  | 5.1 J       |  | 3.5 J       |  | 29 J         |  | 26 J         |  | 250 J        |  | 20 J         |  | 3.7 J        |  |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                | R5-040-V-Z1a |         | R5-040-V-Z1b |           | R5-040-V-Z2 |          | R5-040-V-Z3 |          | R5-040-V-Z4 |         | R5-040-V-Z5a |          | R5-045-VR |          | R5-045-V-Z1 |           |
|------------------------------------------|--------------|---------|--------------|-----------|-------------|----------|-------------|----------|-------------|---------|--------------|----------|-----------|----------|-------------|-----------|
| Sample Date                              | 5/20/2010    | 0-0.5   | 0.5-1        | 1-2       | 5/20/2010   | 1-2      | 5/20/2010   | 2-3      | 5/20/2010   | 3-4     | 5/20/2010    | 40638-5  | 5/20/2010 | 3-4      | 5/20/2010   | 5/20/2010 |
| Sample Depth Range (ft)                  | 0-0.5        | 0.5-1   | 1-2          | 5/20/2010 | 0.5-1       | 1-2      | 5/20/2010   | 2-3      | 5/20/2010   | 3-4     | 5/20/2010    | 40638-5  | 5/20/2010 | 3-4      | 5/20/2010   | 5/20/2010 |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |              |         |              |           |             |          |             |          |             |         |              |          |           |          |             |           |
| 1-METHYLNAPHTHALENE                      | 0.015        | 0.004 U | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.042 J     |           |
| 2-METHYLNAPHTHALENE                      | 0.021        | 0.0091  | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.041 J     |           |
| ACENAPHTHENE                             | 0.033        | 0.01    | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.051       |           |
| ACENAPHTHYLENE                           | 0.021        | 0.019   | 0.017        | 0.017     | 0.015       | 0.015    | 0.015       | 0.015    | 0.017       | 0.0089  | 0.0089       | 0.0036 U | 0.0036 U  | 0.0036 U | 0.02        |           |
| ANTHRACENE                               | 0.047        | 0.016   | 0.013        | 0.013     | 0.0078      | 0.0078   | 0.0078      | 0.0078   | 0.017       | 0.002 U | 0.002 U      | 0.013    | 0.013     | 0.054    | 0.45        |           |
| BENZO(A)ANTHRACENE                       | 0.11         | 0.058   | 0.051        | 0.051     | 0.038       | 0.038    | 0.038       | 0.038    | 0.061       | 0.002 U | 0.002 U      | 0.054    | 0.054     | 0.049    | 0.36        |           |
| BENZO(A)PYRENE                           | 0.084        | 0.034   | 0.033        | 0.033     | 0.027       | 0.027    | 0.027       | 0.027    | 0.045       | 0.002 U | 0.002 U      | 0.049    | 0.049     | 0.049    | 0.36        |           |
| BENZO(B)FLUORANTHENE                     | 0.086 J      | 0.018   | 0.0071 J     | 0.0071 J  | 0.028 J     | 0.028 J  | 0.028 J     | 0.028 J  | 0.044 J     | 0.002 U | 0.002 U      | 0.066    | 0.066     | 0.066    | 0.39 J      |           |
| BENZO(G,H,I)PERYLENE                     | 0.038 J      | 0.015 J | 0.013        | 0.013     | 0.01        | 0.01     | 0.01        | 0.01     | 0.016       | 0.002 U | 0.002 U      | 0.023    | 0.023     | 0.023    | 0.061       |           |
| BENZO(K)FLUORANTHENE                     | 0.081        | 0.029   | 0.032        | 0.032     | 0.027       | 0.027    | 0.027       | 0.027    | 0.043       | 0.002 U | 0.002 U      | 0.068 J  | 0.068 J   | 0.068 J  | 0.23        |           |
| BENZO(E)PYRENE                           | 0.07         | 0.028   | 0.026        | 0.026     | 0.022       | 0.022    | 0.022       | 0.022    | 0.036       | 0.002 U | 0.002 U      | 0.056 J  | 0.056 J   | 0.056 J  | 0.68 J      |           |
| C1-CHRYSENE                              | 0.35 J       | 0.19 J  | 0.11 J       | 0.11 J    | 0.066 J     | 0.066 J  | 0.066 J     | 0.066 J  | 0.076 J     | 0.002 U | 0.002 U      | 0.12 J   | 0.12 J    | 0.12 J   | 0.66 J      |           |
| C1-FLUORANTHENE/PYRENE                   | 0.31 J       | 0.1 J   | 0.11 J       | 0.11 J    | 0.052 J     | 0.052 J  | 0.052 J     | 0.052 J  | 0.081 J     | 0.002 U | 0.002 U      | 0.055 J  | 0.055 J   | 0.055 J  | 0.8 J       |           |
| C1-FLUORENE                              | 0.054 J      | 0.042 J | 0.031 J      | 0.031 J   | 0.015 J     | 0.015 J  | 0.015 J     | 0.015 J  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.0066 U    |           |
| C1-NAPHTHALENE                           | 0.024 J      | 0.01 J  | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.056 J     |           |
| C1-PHENANTHRENE/ANTHRACENE               | 0.25 J       | 0.095 J | 0.05 J       | 0.05 J    | 0.033 J     | 0.033 J  | 0.033 J     | 0.033 J  | 0.046 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.46 J      |           |
| C2-CHRYSENE                              | 0.16 J       | 0.098 J | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.22 J      |           |
| C2-FLUORANTHENE/PYRENE                   | 0.19 J       | 0.087 J | 0.073 J      | 0.073 J   | 0.053 J     | 0.053 J  | 0.053 J     | 0.053 J  | 0.051 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.36 J      |           |
| C2-FLUORENE                              | 0.08 J       | 0.042 J | 0.016 J      | 0.016 J   | 0.01 J      | 0.01 J   | 0.01 J      | 0.01 J   | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.14 J      |           |
| C2-NAPHTHALENE                           | 0.049 J      | 0.022 J | 0.0095 J     | 0.0095 J  | 0.0066 J    | 0.0066 J | 0.0066 J    | 0.0066 J | 0.0078 J    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.13 J      |           |
| C2-PHENANTHRENE/ANTHRACENE               | 0.39 J       | 0.15 J  | 0.11 J       | 0.11 J    | 0.068 J     | 0.068 J  | 0.068 J     | 0.068 J  | 0.074 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.33 J      |           |
| C3-CHRYSENE                              | 0.0037 U     | 0.004 U | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.081 J     |           |
| C3-FLUORANTHENE/PYRENE                   | 0.13 J       | 0.058 J | 0.06 J       | 0.06 J    | 0.032 J     | 0.032 J  | 0.032 J     | 0.032 J  | 0.034 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.21 J      |           |
| C3-FLUORENE                              | 0.12 J       | 0.004 U | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.0066 U    |           |
| C3-NAPHTHALENE                           | 0.12 J       | 0.048 J | 0.016 J      | 0.016 J   | 0.011 J     | 0.011 J  | 0.011 J     | 0.011 J  | 0.013 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.15 J      |           |
| C3-PHENANTHRENE/ANTHRACENE               | 0.32 J       | 0.16 J  | 0.12 J       | 0.12 J    | 0.073 J     | 0.073 J  | 0.073 J     | 0.073 J  | 0.064 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.21 J      |           |
| C4-CHRYSENE                              | 0.0037 U     | 0.004 U | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.041 J     |           |
| C4-NAPHTHALENE                           | 0.14 J       | 0.054 J | 0.023 J      | 0.023 J   | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.13 J      |           |
| C4-PHENANTHRENE/ANTHRACENE               | 0.24 J       | 0.14 J  | 0.11 J       | 0.11 J    | 0.077 J     | 0.077 J  | 0.077 J     | 0.077 J  | 0.054 J     | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.081 J     |           |
| CHRYSENE                                 | 0.14         | 0.08    | 0.056        | 0.056     | 0.055       | 0.055    | 0.055       | 0.055    | 0.084       | 0.002 U | 0.002 U      | 0.034 J  | 0.034 J   | 0.034 J  | 0.43        |           |
| DIBENZ(A,H)ANTHRACENE                    | 0.013 J      | 0.004 U | 0.0034 U     | 0.0034 U  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0031 U    | 0.002 U | 0.002 U      | 0.015    | 0.015     | 0.015    | 0.032       |           |
| FLUORANTHENE                             | 0.22         | 0.11    | 0.095        | 0.095     | 0.06        | 0.06     | 0.06        | 0.06     | 0.13        | 0.0041  | 0.0041       | 0.066    | 0.066     | 0.066    | 0.52        |           |
| FLUORENE                                 | 0.04         | 0.018   | 0.0063 J     | 0.0063 J  | 0.003 U     | 0.003 U  | 0.003 U     | 0.003 U  | 0.0076      | 0.002 U | 0.002 U      | 0.0074   | 0.0074    | 0.0074   | 0.047       |           |
| INDENO(1,2,3-C,D)PYRENE                  | 0.034 J      | 0.014   | 0.012        | 0.012     | 0.0098      | 0.0098   | 0.0098      | 0.0098   | 0.016       | 0.002 U | 0.002 U      | 0.019    | 0.019     | 0.019    | 0.07        |           |
| NAPHTHALENE                              | 0.017        | 0.011   | 0.0093       | 0.0093    | 0.0066      | 0.0066   | 0.0066      | 0.0066   | 0.0031 U    | 0.002 U | 0.002 U      | 0.0036 U | 0.0036 U  | 0.0036 U | 0.019       |           |
| PERYLENE                                 | 0.028        | 0.014   | 0.021        | 0.021     | 0.019       | 0.019    | 0.019       | 0.019    | 0.024       | 0.0048  | 0.0048       | 0.15 J   | 0.15 J    | 0.15 J   | 0.078       |           |
| PHENANTHRENE                             | 0.16         | 0.069   | 0.036        | 0.036     | 0.025       | 0.025    | 0.025       | 0.025    | 0.047       | 0.002 U | 0.002 U      | 0.03     | 0.03      | 0.03     | 0.38        |           |
| PYRENE                                   | 0.25         | 0.11    | 0.11         | 0.11      | 0.057       | 0.057    | 0.057       | 0.057    | 0.13        | 0.0064  | 0.0064       | 0.041    | 0.041     | 0.041    | 0.57        |           |
| PAHs (total)                             | 1.4 J        | 0.61 J  | 0.49 J       | 0.49 J    | 0.37 J      | 0.37 J   | 0.37 J      | 0.37 J   | 0.66 J      | 0.019   | 0.019        | 0.49 J   | 0.49 J    | 0.49 J   | 3.6 J       |           |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |          | R5-045-V-Z2 | R5-045-V-Z3 | R5-045-V-Z4 | R5-045-V-Z5a | R5-047-V-Z1a | R5-047-V-Z1b | R5-047-V-Z2 | R5-047-V-Z3 | R5-047-V-Z4 |
|------------------------------------------|----------|-------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-------------|
| Sample Date                              |          | 5/20/2010   | 5/20/2010   | 5/20/2010   | 5/20/2010    | 5/20/2010    | 5/20/2010    | 5/20/2010   | 5/20/2010   | 5/20/2010   |
| Sample Depth Range (ft)                  |          | 1-2         | 2-3         | 3-4         | 4.5-5        | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |          |             |             |             |              |              |              |             |             |             |
| 1-METHYLNAPHTHALENE                      | 0.0034 U | 0.0036 U    | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0066 U     | 0.0061 U     | 0.014       | 0.011       | 0.011       |
| 2-METHYLNAPHTHALENE                      | 0.0064 J | 0.0074 J    | 0.0034 U    | 0.0032 U    | 0.012 J      | 0.013        | 0.013        | 0.015       | 0.019       | 0.024       |
| ACENAPHTHENE                             | 0.0082 J | 0.01        | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.017       | 0.0081 J    | 0.0036 U    |
| ACENAPHTHYLENE                           | 0.0097   | 0.01        | 0.0034 U    | 0.0032 U    | 0.032        | 0.024        | 0.024        | 0.03        | 0.014 J     | 0.0098      |
| ANTHRACENE                               | 0.04     | 0.041       | 0.0086      | 0.011       | 0.06         | 0.07         | 0.07         | 0.091       | 0.043       | 0.044       |
| BENZO(A)ANTHRACENE                       | 0.22     | 0.22        | 0.066       | 0.059       | 0.37         | 0.37         | 0.37         | 0.4         | 0.19        | 0.18        |
| BENZO(A)PYRENE                           | 0.17     | 0.19        | 0.053 J     | 0.044 J     | 0.35         | 0.35         | 0.35         | 0.33        | 0.16        | 0.12        |
| BENZO(B)FLUORANTHENE                     | 0.24 J   | 0.2 J       | 0.062       | 0.038       | 0.55 J       | 0.53 J       | 0.53 J       | 0.46 J      | 0.39 J      | 0.15 J      |
| BENZO(G,H,I)PERYLENE                     | 0.03     | 0.032       | 0.015       | 0.012       | 0.12         | 0.093        | 0.093        | 0.44 J      | 0.066       | 0.037       |
| BENZO(K)FLUORANTHENE                     | 0.12     | 0.11        | 0.03 J      | 0.037       | 0.26         | 0.25         | 0.25         | 0.22        | 0.11        | 0.078       |
| BENZO(E)PYRENE                           | 0.38 J   | 0.36 J      | 0.04 J      | 0.039 J     | 0.77 J       | 0.79 J       | 0.79 J       | 0.74 J      | 0.31 J      | 0.21 J      |
| C1-CHRYSENES                             | 0.21 J   | 0.31 J      | 0.072 J     | 0.019 J     | 0.059 J      | 0.087 J      | 0.087 J      | 0.15 J      | 0.14 J      | 0.061 J     |
| C1-FLUORANTHENE/PYRENES                  | 0.17 J   | 0.34 J      | 0.041 J     | 0.0032 U    | 0.0066 U     | 0.011 J      | 0.011 J      | 0.017 J     | 0.017 J     | 0.021 J     |
| C1-FLUORENES                             | 0.026 J  | 0.017 J     | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C1-NAPHTHALENES                          | 0.0064 J | 0.01 J      | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0077 J    | 0.0071 J    |
| C1-PHENANTHRENE/ANTHRACENES              | 0.097 J  | 0.17 J      | 0.019 J     | 0.0032 U    | 0.0066 U     | 0.034 J      | 0.034 J      | 0.0055 U    | 0.0041 U    | 0.097 J     |
| C2-CHRYSENES                             | 0.0034 U | 0.12 J      | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C2-FLUORANTHENE/PYRENES                  | 0.11 J   | 0.16 J      | 0.026 J     | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C2-FLUORENES                             | 0.026 J  | 0.059 J     | 0.0079 J    | 0.0092 J    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.032 J     | 0.036 J     | 0.034 J     |
| C2-NAPHTHALENES                          | 0.0034 U | 0.024 J     | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C2-PHENANTHRENE/ANTHRACENES              | 0.12 J   | 0.13 J      | 0.032 J     | 0.042 J     | 0.1 J        | 0.11 J       | 0.11 J       | 0.085 J     | 0.086 J     | 0.1 J       |
| C3-CHRYSENES                             | 0.0034 U | 0.038 J     | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C3-FLUORANTHENE/PYRENES                  | 0.0034 U | 0.13 J      | 0.015 J     | 0.0092 J    | 0.0066 U     | 0.034 J      | 0.034 J      | 0.072 J     | 0.046 J     | 0.037 J     |
| C3-FLUORENES                             | 0.0034 U | 0.0036 U    | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C3-NAPHTHALENES                          | 0.0034 U | 0.051 J     | 0.0073 J    | 0.0032 U    | 0.019 J      | 0.016 J      | 0.016 J      | 0.028 J     | 0.031 J     | 0.027 J     |
| C3-PHENANTHRENE/ANTHRACENES              | 0.082 J  | 0.13 J      | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C4-CHRYSENES                             | 0.0034 U | 0.019 J     | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C4-NAPHTHALENES                          | 0.0034 U | 0.049 J     | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| C4-PHENANTHRENE/ANTHRACENES              | 0.0034 U | 0.049 J     | 0.0034 U    | 0.0032 U    | 0.0066 U     | 0.0061 U     | 0.0061 U     | 0.0055 U    | 0.0041 U    | 0.0036 U    |
| CHRYSENE                                 | 0.23     | 0.21        | 0.044       | 0.026       | 0.42         | 0.42         | 0.42         | 0.41        | 0.21        | 0.21        |
| DIBENZ(A,H)ANTHRACENE                    | 0.016    | 0.017       | 0.0034 U    | 0.0032 U    | 0.05         | 0.031        | 0.031        | 0.048       | 0.026       | 0.016       |
| FLUORANTHENE                             | 0.41     | 0.24        | 0.036       | 0.058       | 0.63         | 0.61         | 0.61         | 0.57        | 0.28        | 0.26        |
| FLUORENE                                 | 0.018    | 0.013       | 0.0067      | 0.0082      | 0.024        | 0.023        | 0.023        | 0.036       | 0.021 J     | 0.021       |
| INDENO(1,2,3-C,D)PYRENE                  | 0.026    | 0.038       | 0.011       | 0.011       | 0.11         | 0.08         | 0.08         | 0.45 J      | 0.054       | 0.031       |
| NAPHTHALENE                              | 0.0066 J | 0.0036 U    | 0.0034 U    | 0.0032 U    | 0.015        | 0.014        | 0.014        | 0.015       | 0.021       | 0.031       |
| PERYLENE                                 | 0.014    | 0.095       | 0.06 J      | 0.16        | 0.055        | 0.044        | 0.044        | 0.071       | 0.054       | 0.044       |
| PHENANTHRENE                             | 0.11     | 0.11        | 0.026       | 0.053       | 0.21         | 0.21         | 0.21         | 0.28        | 0.1         | 0.12        |
| PYRENE                                   | 0.4      | 0.26        | 0.029 J     | 0.046 J     | 0.51         | 0.52         | 0.52         | 0.53        | 0.25        | 0.22        |
| PAHs (total)                             | 2.1 J    | 1.7 J       | 0.39 J      | 0.4 J       | 3.7 J        | 3.6 J        | 3.6 J        | 4.3 J       | 1.9 J       | 1.5 J       |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |           | R5-050-VR | R5-050-V-Z1a | R5-050-V-Z1b | R5-050-V-Z2 | R5-050-V-Z3 | R5-050-V-Z4 | R5-050-V-Z5a |
|------------------------------------------|-----------|-----------|--------------|--------------|-------------|-------------|-------------|--------------|
| Sample Date                              |           | 5/21/2010 | 5/21/2010    | 5/21/2010    | 5/21/2010   | 5/21/2010   | 5/21/2010   | 5/21/2010    |
| Sample Depth Range (ft)                  |           | 1-2       | 0-0.5        | 0.5-1        | 1-2         | 2-3         | 3-4         | 4-4.5        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |           |           |              |              |             |             |             |              |
| 1-METHYLNAPHTHALENE                      | 0.023 J   | 0.0053 UJ | 0.0053 UJ    | 0.0053 UJ    | 0.015 J     | 0.24 UJ     | 0.057 J     | 0.011 J      |
| 2-METHYLNAPHTHALENE                      | 0.013 J   | 0.0053 UJ | 0.0053 UJ    | 0.0053 UJ    | 0.025 J     | 0.09 J      | 0.068 J     | 0.017 J      |
| ACENAPHTHENE                             | 0.015 J   | 0.009 J   | 0.0053 UJ    | 0.0053 UJ    | 0.033 J     | 0.094 J     | 0.069 J     | 0.024 J      |
| ACENAPHTHYLENE                           | 0.047 J   | 0.044 J   | 0.02 J       | 0.02 J       | 0.044 J     | 0.075 J     | 0.057 J     | 0.0032 UJ    |
| ANTHRACENE                               | 0.0042 UJ | 0.031 J   | 0.039 J      | 0.11 J       | 0.041 J     | 0.0048 UJ   | 0.073 J     | 0.16 UJ      |
| BENZO(A)ANTHRACENE                       | 0.63 J    | 0.21 J    | 0.2 J        | 0.2 J        | 0.45 J      | 0.81 J      | 1.5 J       | 0.41 J       |
| BENZO(A)PYRENE                           | 0.01 J    | 0.27 J    | 0.25 J       | 0.25 J       | 0.65 J      | 0.65 J      | 1.5 J       | 0.35 J       |
| BENZO(B)FLUORANTHENE                     | 0.0042 UJ | 0.15 J    | 0.13 J       | 0.13 J       | 0.31 J      | 0.56 J      | 0.92 J      | 0.16 UJ      |
| BENZO(G,H,I)PERYLENE                     | 0.0042 UJ | 0.078 J   | 0.068 J      | 0.068 J      | 0.095 J     | 0.24 UJ     | 0.48 UJ     | 0.16 UJ      |
| BENZO(K)FLUORANTHENE                     | 0.014 J   | 0.22 J    | 0.21 J       | 0.21 J       | 0.35 J      | 0.52 J      | 0.93 J      | 0.33 J       |
| BENZO(E)PYRENE                           | 0.0042 UJ | 0.22 J    | 0.2 J        | 0.2 J        | 0.75 J      | 0.56 J      | 1.9 J       | 0.52 J       |
| C1-CHRYSENES                             | 0.42 J    | 0.19 J    | 0.13 J       | 0.13 J       | 1.3 J       | 0.95 J      | 2.7 J       | 0.35 J       |
| C1-FLUORANTHENES/PYRENES                 | 0.0042 UJ | 0.17 J    | 0.14 J       | 0.14 J       | 1.2 J       | 0.66 J      | 0.52 J      | 0.43 J       |
| C1-FLUORENES                             | 0.011 J   | 0.0053 UJ | 0.029 J      | 0.029 J      | 0.0047 UJ   | 0.49 J      | 0.28 J      | 0.078 J      |
| C1-NAPHTHALENES                          | 0.0087 J  | 0.0072 J  | 0.0076 J     | 0.0076 J     | 0.035 J     | 0.15 J      | 0.096 J     | 0.023 J      |
| C1-PHENANTHRENES/ANTHRACENES             | 0.0042 UJ | 0.064 J   | 0.052 J      | 0.052 J      | 0.18 J      | 2.7 J       | 1 J         | 0.35 J       |
| C2-CHRYSENES                             | 0.017 J   | 0.084 J   | 0.0053 UJ    | 0.0053 UJ    | 0.73 J      | 1.1 J       | 3.5 J       | 0.28 J       |
| C2-FLUORANTHENES/PYRENES                 | 0.0042 UJ | 0.14 J    | 0.12 J       | 0.12 J       | 1.1 J       | 0.64 J      | 0.61 J      | 0.32 J       |
| C2-FLUORENES                             | 0.092 J   | 0.0053 UJ | 0.014 J      | 0.014 J      | 0.77 J      | 2.4 J       | 1.8 J       | 0.45 J       |
| C2-NAPHTHALENES                          | 0.0042 UJ | 0.02 J    | 0.023 J      | 0.023 J      | 0.12 J      | 1.8 J       | 1.1 J       | 0.053 J      |
| C2-PHENANTHRENES/ANTHRACENES             | 0.0042 UJ | 0.07 J    | 0.051 J      | 0.051 J      | 0.8 J       | 2.2 J       | 0.96 J      | 0.66 J       |
| C3-CHRYSENES                             | 0.0089 J  | 0.0053 UJ | 0.0053 UJ    | 0.0053 UJ    | 0.47 J      | 1 J         | 2.8 J       | 0.28 J       |
| C3-FLUORANTHENES/PYRENES                 | 0.0042 UJ | 0.082 J   | 0.054 J      | 0.054 J      | 0.71 J      | 0.53 J      | 0.62 J      | 0.25 J       |
| C3-FLUORENES                             | 0.022 J   | 0.0053 UJ | 0.0053 UJ    | 0.0053 UJ    | 1.7 J       | 3 J         | 2.7 J       | 0.72 J       |
| C3-NAPHTHALENES                          | 0.11 J    | 0.02 J    | 0.021 J      | 0.021 J      | 0.9 J       | 7.4 J       | 2.7 J       | 0.38 J       |
| C3-PHENANTHRENES/ANTHRACENES             | 0.0042 UJ | 0.053 J   | 0.0053 UJ    | 0.0053 UJ    | 1.1 J       | 2.4 J       | 1.3 J       | 0.85 J       |
| C4-CHRYSENES                             | 0.0042 UJ | 0.0053 UJ | 0.0053 UJ    | 0.0053 UJ    | 0.16 J      | 0.75 J      | 1.5 J       | 0.086 J      |
| C4-NAPHTHALENES                          | 0.033 J   | 0.0053 UJ | 0.052 J      | 0.052 J      | 2.4 J       | 7.6 J       | 4.2 J       | 0.72 J       |
| C4-PHENANTHRENES/ANTHRACENES             | 0.0042 UJ | 0.0053 UJ | 0.0053 UJ    | 0.0053 UJ    | 0.65 J      | 2.3 J       | 1.2 J       | 0.75 J       |
| CHRYSENE                                 | 0.92 J    | 0.27 J    | 0.25 J       | 0.25 J       | 0.62 J      | 1.3 J       | 2.3 J       | 0.63 J       |
| DIBENZ(A,H)ANTHRACENE                    | 0.0042 UJ | 0.029 J   | 0.024 J      | 0.024 J      | 0.034 J     | 0.24 UJ     | 0.48 UJ     | 0.16 UJ      |
| FLUORANTHENE                             | 0.0042 UJ | 0.44 J    | 0.41 J       | 0.41 J       | 0.67 J      | 2.2 J       | 0.48 UJ     | 1 J          |
| FLUORENE                                 | 0.051 J   | 0.026 J   | 0.012 J      | 0.012 J      | 0.037 J     | 0.24 UJ     | 0.48 UJ     | 0.16 UJ      |
| INDENO(1,2,3-C,D)PYRENE                  | 0.0042 UJ | 0.065 J   | 0.06 J       | 0.06 J       | 0.075 J     | 0.24 UJ     | 0.48 UJ     | 0.16 UJ      |
| NAPHTHALENE                              | 0.016 J   | 0.0064 J  | 0.0077 J     | 0.0077 J     | 0.016 J     | 0.035 J     | 0.038 J     | 0.016 J      |
| PERYLENE                                 | 0.0042 UJ | 0.033 J   | 0.046 J      | 0.046 J      | 0.13 J      | 0.24 UJ     | 0.48 UJ     | 0.16 UJ      |
| PHENANTHRENE                             | 0.0042 UJ | 0.1 J     | 0.1 J        | 0.1 J        | 0.086 J     | 1.4 J       | 0.94 J      | 0.16 UJ      |
| PYRENE                                   | 0.6 J     | 0.25 J    | 0.22 J       | 0.22 J       | 0.42 J      | 1.2 J       | 1.2 J       | 0.6 J        |
| PAHs (total)                             | 2.3 J     | 2.2 J     | 2 J          | 2 J          | 4 J         | 8.8 J       | 9.5 J       | 3.4 J        |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID R6-144-C-Z1a R6-146-C-Z1a R6-149-C-Comp R6-151-C-Comp R6-153-C-Comp R6-154-C-Z1a R6-156-C-Comp R6-158-CR |          |          |          |          |          |          |          |          |          |          |
|--------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sample Date                                                                                                        |          | 7/2/2010 | 7/2/2010 | 7/1/2010 | 7/2/2010 | 7/2/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 | 7/1/2010 |
| Sample Depth Range (ft)                                                                                            |          | 0-0.5    | 0-0.5    | 0-0.9    | 0-0.7    | 0-0.5    | 0-0.5    | 0-0.5    | 0-0.7    | 0-0.5    |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                           |          |          |          |          |          |          |          |          |          |          |
| 1-METHYLNAPHTHALENE                                                                                                | 0.009 UJ | 0.02     | 0.0071 J | 0.0078 J | 0.018 J  | 0.0073 J | 0.019 J  | 0.019 J  | 0.019 J  | 0.005 UJ |
| 2-METHYLNAPHTHALENE                                                                                                | 0.049 U  | 0.047    | 0.007    | 0.0087 J | 0.019    | 0.0085   | 0.019    | 0.0085   | 0.019    | 0.005 U  |
| ACENAPHTHENE                                                                                                       | 0.0091 J | 0.052    | 0.015    | 0.013 J  | 0.033    | 0.014    | 0.063    | 0.063    | 0.063    | 0.0055 J |
| ACENAPHTHYLENE                                                                                                     | 0.022    | 0.079 J  | 0.023    | 0.038 J  | 0.1 J    | 0.037    | 0.05     | 0.05     | 0.05     | 0.012    |
| ANTHRACENE                                                                                                         | 0.043    | 0.18     | 0.11     | 0.049 J  | 0.11     | 0.057    | 0.24     | 0.24     | 0.24     | 0.064 J  |
| BENZO(A)ANTHRACENE                                                                                                 | 0.12     | 0.7      | 0.18     | 0.2      | 0.38     | 0.22     | 0.28     | 0.28     | 0.28     | 0.083 J  |
| BENZO(A)PYRENE                                                                                                     | 0.081    | 0.18     | 0.061    | 0.055 J  | 0.13     | 0.077    | 0.12     | 0.12     | 0.12     | 0.037    |
| BENZO(B)FLUORANTHENE                                                                                               | 0.11 J   | 0.15     | 0.081    | 0.059 J  | 0.2      | 0.1      | 0.077    | 0.077    | 0.077    | 0.034    |
| BENZO(G,H,I)PERYLENE                                                                                               | 0.065    | 0.2      | 0.048    | 0.062    | 0.074    | 0.068 J  | 0.099    | 0.099    | 0.099    | 0.03 J   |
| BENZO(K)FLUORANTHENE                                                                                               | 0.053    | 0.15     | 0.061    | 0.064 J  | 0.13     | 0.081    | 0.12     | 0.12     | 0.12     | 0.042    |
| BENZO(E)PYRENE                                                                                                     | 0.064    | 0.4      | 0.067    | 0.12     | 0.19     | 0.13     | 0.12     | 0.12     | 0.12     | 0.049    |
| C1-CHRYSENES                                                                                                       | 0.18 J   | 1.4 J    | 0.27 J   | 0.19 J   | 0.5 J    | 0.27 J   | 0.64 J   | 0.64 J   | 0.64 J   | 0.15 J   |
| C1-FLUORANTHENES/PYRENES                                                                                           | 0.21 J   | 1.5 J    | 0.29 J   | 0.23 J   | 0.77 J   | 0.28 J   | 0.79 J   | 0.79 J   | 0.79 J   | 0.22 J   |
| C1-FLUORENES                                                                                                       | 0.028 J  | 0.23 J   | 0.035 J  | 0.041 J  | 0.077 J  | 0.038 J  | 0.085 J  | 0.085 J  | 0.085 J  | 0.034 J  |
| C1-NAPHTHALENES                                                                                                    | 0.011 J  | 0.055 J  | 0.013 J  | 0.013 J  | 0.028 J  | 0.013 J  | 0.029 J  | 0.029 J  | 0.029 J  | 0.0062 J |
| C1-PHENANTHRENES/ANTHRACENES                                                                                       | 0.091 J  | 0.32 J   | 0.17 J   | 0.12 J   | 0.4 J    | 0.11 J   | 0.38 J   | 0.38 J   | 0.38 J   | 0.097 J  |
| C2-CHRYSENES                                                                                                       | 0.079 J  | 2.1 J    | 0.13 J   | 0.12 J   | 0.2 J    | 0.12 J   | 0.37 J   | 0.37 J   | 0.37 J   | 0.073 J  |
| C2-FLUORANTHENES/PYRENES                                                                                           | 0.084 J  | 1.4 J    | 0.11 J   | 0.1 J    | 0.32 J   | 0.12 J   | 0.33 J   | 0.33 J   | 0.33 J   | 0.09 J   |
| C2-FLUORENES                                                                                                       | 0.037 J  | 0.37 J   | 0.034 J  | 0.008 U  | 0.096 J  | 0.007 U  | 0.11 J   | 0.11 J   | 0.11 J   | 0.005 U  |
| C2-NAPHTHALENES                                                                                                    | 0.014 J  | 0.24 J   | 0.027 J  | 0.03 J   | 0.06 J   | 0.04 J   | 0.087 J  | 0.087 J  | 0.087 J  | 0.009 J  |
| C2-PHENANTHRENES/ANTHRACENES                                                                                       | 0.068 J  | 0.8 J    | 0.13 J   | 0.075 J  | 0.31 J   | 0.1 J    | 0.32 J   | 0.32 J   | 0.32 J   | 0.069 J  |
| C3-CHRYSENES                                                                                                       | 0.058 J  | 1.2 J    | 0.11 J   | 0.075 J  | 0.16 J   | 0.094 J  | 0.18 J   | 0.18 J   | 0.18 J   | 0.05 J   |
| C3-FLUORANTHENES/PYRENES                                                                                           | 0.06 J   | 1.2 J    | 0.099 J  | 0.066 J  | 0.25 J   | 0.11 J   | 0.3 J    | 0.3 J    | 0.3 J    | 0.067 J  |
| C3-FLUORENES                                                                                                       | 0.009 U  | 1.4 J    | 0.006 U  | 0.008 U  | 0.008 U  | 0.007 U  | 0.006 U  | 0.006 U  | 0.006 U  | 0.005 U  |
| C3-NAPHTHALENES                                                                                                    | 0.03 J   | 0.48 J   | 0.038 J  | 0.025 J  | 0.087 J  | 0.033 J  | 0.091 J  | 0.091 J  | 0.091 J  | 0.022 J  |
| C3-PHENANTHRENES/ANTHRACENES                                                                                       | 0.036 J  | 1.4 J    | 0.055 J  | 0.059 J  | 0.18 J   | 0.057 J  | 0.25 J   | 0.25 J   | 0.25 J   | 0.043 J  |
| C4-CHRYSENES                                                                                                       | 0.009 U  | 0.52 J   | 0.006 U  | 0.032 J  | 0.047 J  | 0.007 U  | 0.048 J  | 0.048 J  | 0.048 J  | 0.005 U  |
| C4-NAPHTHALENES                                                                                                    | 0.021 J  | 0.95 J   | 0.026 J  | 0.017 J  | 0.049 J  | 0.026 J  | 0.095 J  | 0.095 J  | 0.095 J  | 0.017 J  |
| C4-PHENANTHRENES/ANTHRACENES                                                                                       | 0.038 J  | 1.1 J    | 0.006 U  | 0.008 U  | 0.079 J  | 0.052 J  | 0.1 J    | 0.1 J    | 0.1 J    | 0.032 J  |
| CHRYSENE                                                                                                           | 0.21     | 1.1      | 0.27     | 0.3      | 0.5      | 0.29     | 0.4      | 0.4      | 0.4      | 0.12 J   |
| DIBENZ(A,H)ANTHRACENE                                                                                              | 0.026    | 0.072    | 0.026    | 0.028    | 0.038    | 0.047    | 0.062    | 0.062    | 0.062    | 0.015    |
| FLUORANTHENE                                                                                                       | 0.37     | 0.95     | 0.43     | 0.42     | 0.58     | 0.3      | 0.7      | 0.7      | 0.7      | 0.21     |
| FLUORENE                                                                                                           | 0.013    | 0.068    | 0.017    | 0.025 J  | 0.048    | 0.015    | 0.064    | 0.064    | 0.064    | 0.0078 J |
| INDENO(1,2,3-C,D)PYRENE                                                                                            | 0.059    | 0.096    | 0.043    | 0.059    | 0.076    | 0.08 J   | 0.078    | 0.078    | 0.078    | 0.026    |
| NAPHTHALENE                                                                                                        | 0.009 U  | 0.027    | 0.0079   | 0.0086 J | 0.013    | 0.0089   | 0.034    | 0.034    | 0.034    | 0.005 U  |
| PERYLENE                                                                                                           | 0.04     | 0.068    | 0.04     | 0.041    | 0.055    | 0.062    | 0.048    | 0.048    | 0.048    | 0.019 J  |
| PHENANTHRENE                                                                                                       | 0.12     | 0.32     | 0.19     | 0.17     | 0.33     | 0.18     | 0.43     | 0.43     | 0.43     | 0.083 J  |
| PYRENE                                                                                                             | 0.22     | 1.2      | 0.3      | 0.4      | 0.73     | 0.35     | 0.4      | 0.4      | 0.4      | 0.13 J   |
| PAHs (total)                                                                                                       | 1.5 J    | 5.5 J    | 1.9 J    | 2 J      | 3.5 J    | 1.9 J    | 3.2 J    | 3.2 J    | 3.2 J    | 0.9 J    |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |          | R6-158-C-Z1a | R6-161-C-Z1a | R6-163-C-Z1a | R6-165-C-Z1a | R6-168-C-Z1a | R6-170-C-Z1a | R6-171-C-Z1a | R7-172-C-Z1a |
|------------------------------------------|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Sample Date                              |          | 7/1/2010     | 7/1/2010     | 6/30/2010    | 6/30/2010    | 6/30/2010    | 6/25/2010    | 6/25/2010    | 6/25/2010    |
| Sample Depth Range (ft)                  |          | 0-0.5        | 0-0.5        | 0-0.5        | 0-0.5        | 0-0.5        | 0-0.5        | 0-0.5        | 0-0.5        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |          |              |              |              |              |              |              |              |              |
| 1-METHYLNAPHTHALENE                      | 0.0063 J | 0.032        | 0.004 U      | 0.009 U      | 0.009 U      | 0.009 U      | 0.008 U      | 0.0097       | 0.068        |
| 2-METHYLNAPHTHALENE                      | 0.0066   | 0.047        | 0.0049       | 0.009 U      | 0.009 J      | 0.0075 J     | 0.012        | 0.012        | 0.064        |
| ACENAPHTHENE                             | 0.018 J  | 0.11         | 0.007        | 0.014        | 0.017        | 0.012        | 0.028        | 0.028        | 0.72         |
| ACENAPHTHYLENE                           | 0.02     | 0.081        | 0.019        | 0.033        | 0.038        | 0.019        | 0.029        | 0.029        | 0.2          |
| ANTHRACENE                               | 0.15 J   | 0.32         | 0.025        | 0.067        | 0.047        | 0.053        | 0.092        | 0.092        | 2.9          |
| BENZO(A)ANTHRACENE                       | 0.19 J   | 0.36         | 0.057        | 0.21         | 0.2          | 0.77         | 1.2 J        | 1.2 J        | 3.7          |
| BENZO(A)PYRENE                           | 0.069    | 0.16         | 0.024        | 0.089 J      | 0.089 J      | 0.51         | 0.55         | 0.55         | 3.1          |
| BENZO(B)FLUORANTHENE                     | 0.07     | 0.15         | 0.025        | 0.12         | 0.14         | 0.54         | 0.3          | 0.3          | 1            |
| BENZO(G,H,I)PERYLENE                     | 0.064 J  | 0.12         | 0.019        | 0.12         | 0.11         | 0.21         | 0.24         | 0.24         | 1.3          |
| BENZO(K)FLUORANTHENE                     | 0.053    | 0.17         | 0.027        | 0.099        | 0.1          | 0.54         | 0.53         | 0.53         | 2.5          |
| BENZO(E)PYRENE                           | 0.084    | 0.2          | 0.034        | 0.13         | 0.11         | 0.62         | 0.65         | 0.65         | 3.2          |
| C1-CHRYSENES                             | 0.41 J   | 0.67 J       | 0.063 J      | 0.35 J       | 0.28 J       | 0.29 J       | 0.5 J        | 0.5 J        | 5.1 J        |
| C1-FLUORANTHENES/PYRENES                 | 0.43 J   | 0.93 J       | 0.086 J      | 0.35 J       | 0.25 J       | 0.31 J       | 0.5 J        | 0.5 J        | 3.6 J        |
| C1-FLUORENES                             | 0.039 J  | 0.089 J      | 0.015 J      | 0.032 J      | 0.009 U      | 0.029 J      | 0.06 J       | 0.06 J       | 0.45 J       |
| C1-NAPHTHALENES                          | 0.0096 J | 0.059 J      | 0.0089 J     | 0.011 J      | 0.012 J      | 0.01 J       | 0.015 J      | 0.015 J      | 0.094 J      |
| C1-PHENANTHRENES/ANTHRACENES             | 0.29 J   | 0.59 J       | 0.049 J      | 0.17 J       | 0.11 J       | 0.15 J       | 0.28 J       | 0.28 J       | 1.9 J        |
| C2-CHRYSENES                             | 0.22 J   | 0.44 J       | 0.034 J      | 0.15 J       | 0.15 J       | 0.15 J       | 0.25 J       | 0.25 J       | 2.4 J        |
| C2-FLUORANTHENES/PYRENES                 | 0.2 J    | 0.37 J       | 0.035 J      | 0.14 J       | 0.11 J       | 0.11 J       | 0.19 J       | 0.19 J       | 1.5 J        |
| C2-FLUORENES                             | 0.095 J  | 0.12 J       | 0.031 J      | 0.009 U      | 0.009 U      | 0.029 J      | 0.066 J      | 0.066 J      | 0.79 J       |
| C2-NAPHTHALENES                          | 0.02 J   | 0.091 J      | 0.012 J      | 0.021 J      | 0.026 J      | 0.016 J      | 0.022 J      | 0.022 J      | 0.3 J        |
| C2-PHENANTHRENES/ANTHRACENES             | 0.22 J   | 0.33 J       | 0.027 J      | 0.13 J       | 0.083 J      | 0.11 J       | 0.21 J       | 0.21 J       | 1.8 J        |
| C3-CHRYSENES                             | 0.13 J   | 0.18 J       | 0.026 J      | 0.092 J      | 0.11 J       | 0.081 J      | 0.075 J      | 0.075 J      | 0.82 J       |
| C3-FLUORANTHENES/PYRENES                 | 0.21 J   | 0.27 J       | 0.02 J       | 0.11 J       | 0.1 J        | 0.08 J       | 0.13 J       | 0.13 J       | 0.87 J       |
| C3-FLUORENES                             | 0.005 U  | 0.005 U      | 0.004 U      | 0.009 U      | 0.009 U      | 0.008 U      | 0.009 U      | 0.009 U      | 1.2 J        |
| C3-NAPHTHALENES                          | 0.038 J  | 0.1 J        | 0.016 J      | 0.026 J      | 0.025 J      | 0.019 J      | 0.042 J      | 0.042 J      | 1.4 J        |
| C3-PHENANTHRENES/ANTHRACENES             | 0.12 J   | 0.15 J       | 0.014 J      | 0.071 J      | 0.061 J      | 0.062 J      | 0.13 J       | 0.13 J       | 1.2 J        |
| C4-CHRYSENES                             | 0.059 J  | 0.053 J      | 0.004 U      | 0.009 U      | 0.048 J      | 0.008 U      | 0.009 U      | 0.009 U      | 0.007 U      |
| C4-NAPHTHALENES                          | 0.022 J  | 0.092 J      | 0.004 U      | 0.018 J      | 0.009 U      | 0.018 J      | 0.033 J      | 0.033 J      | 1 J          |
| C4-PHENANTHRENES/ANTHRACENES             | 0.048 J  | 0.058 J      | 0.004 U      | 0.009 U      | 0.05 J       | 0.008 U      | 0.06 J       | 0.06 J       | 0.38 J       |
| CHRYSENE                                 | 0.29 J   | 0.54         | 0.078        | 0.33         | 0.34         | 0.47         | 1.3          | 1.3          | 5.1          |
| DIBENZ(A,H)ANTHRACENE                    | 0.031    | 0.072        | 0.01         | 0.062        | 0.054        | 0.038        | 0.062        | 0.062        | 0.8          |
| FLUORANTHENE                             | 0.43     | 1            | 0.16         | 0.54         | 0.73         | 0.5          | 0.77         | 0.77         | 7.1          |
| FLUORENE                                 | 0.022 J  | 0.19         | 0.0075       | 0.017        | 0.019        | 0.022        | 0.038        | 0.038        | 0.41         |
| INDENO(1,2,3-C,D)PYRENE                  | 0.045    | 0.1          | 0.017        | 0.094 J      | 0.11 J       | 0.066        | 0.21         | 0.21         | 1            |
| NAPHTHALENE                              | 0.0056   | 0.051        | 0.0049       | 0.011        | 0.011        | 0.0079 J     | 0.011        | 0.011        | 0.062        |
| PERYLENE                                 | 0.044 J  | 0.062        | 0.017        | 0.079        | 0.068        | 0.043        | 0.069        | 0.069        | 0.92         |
| PHENANTHRENE                             | 0.24 J   | 0.78         | 0.064        | 0.18         | 0.23         | 0.28         | 0.43         | 0.43         | 5.3          |
| PYRENE                                   | 0.28 J   | 0.57         | 0.075        | 0.32         | 0.32         | 0.47         | 0.74         | 0.74         | 6.9          |
| PAHs (total)                             | 2 J      | 4.8 J        | 0.62 J       | 2.3 J        | 2.6 J        | 4.5 J        | 6.5 J        | 6.5 J        | 42 J         |

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID R7-174-C-Z1a R7-176-C-Z1a R7-178-C-Z1a R7-180-C-Z1a R7-182-C-COMP R7-184-C-Comp R7-186-C-Z1a R7-190-C-Comp |         |           |           |           |           |          |           |           |           |           |           |
|----------------------------------------------------------------------------------------------------------------------|---------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|
| Sample Date                                                                                                          |         | 6/25/2010 | 6/24/2010 | 6/24/2010 | 6/23/2010 | 7/1/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 | 6/30/2010 |
| Sample Depth Range (ft)                                                                                              |         | 0-0.5     | 0-0.5     | 0-0.5     | 0-0.5     | 0-0.8    | 0-0.75    | 0-0.5     | 0-0.5     | 0-0.5     | 0-0.7     |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg)                                                                             |         |           |           |           |           |          |           |           |           |           |           |
| 1-METHYLNAPHTHALENE                                                                                                  | 0.018   | 0.053     | 0.072     | 0.072     | 0.24      | 0.0058   | 0.042     | 0.061     | 0.061     | 0.04      | 0.04      |
| 2-METHYLNAPHTHALENE                                                                                                  | 0.025   | 0.047     | 0.071     | 0.071     | 0.16      | 0.012    | 0.045     | 0.055     | 0.055     | 0.041     | 0.041     |
| ACENAPHTHENE                                                                                                         | 0.046   | 0.13 J    | 0.14 J    | 0.14 J    | 0.86      | 0.012    | 0.16      | 0.21      | 0.21      | 0.1       | 0.1       |
| ACENAPHTHYLENE                                                                                                       | 0.17 J  | 0.15      | 0.25 J    | 0.25 J    | 0.17      | 0.031    | 0.19      | 0.22      | 0.22      | 0.17      | 0.17      |
| ANTHRACENE                                                                                                           | 0.27    | 0.52      | 0.41      | 0.41      | 2.7       | 0.032    | 0.49      | 1.4       | 1.4       | 0.52      | 0.52      |
| BENZO(A)ANTHRACENE                                                                                                   | 0.33    | 2.3       | 1.1       | 1.1       | 3.3       | 0.14     | 2         | 1.9       | 1.9       | 1.5       | 1.5       |
| BENZO(A)PYRENE                                                                                                       | 0.37    | 0.91      | 0.51      | 0.51      | 1.7       | 0.052    | 0.2       | 0.51      | 0.51      | 0.3       | 0.3       |
| BENZO(B)FLUORANTHENE                                                                                                 | 0.28    | 0.82      | 0.59      | 0.59      | 1.1 J     | 0.064 J  | 0.3       | 0.38      | 0.38      | 0.23      | 0.23      |
| BENZO(G,H,I)PERYLENE                                                                                                 | 0.38    | 0.66      | 0.4       | 0.4       | 1.5       | 0.042    | 0.18      | 0.37      | 0.37      | 0.22      | 0.22      |
| BENZO(K)FLUORANTHENE                                                                                                 | 0.24    | 1         | 0.56      | 0.56      | 1.3       | 0.048 J  | 0.21      | 0.57      | 0.57      | 0.29      | 0.29      |
| BENZO(E)PYRENE                                                                                                       | 0.42    | 1.2       | 0.64      | 0.64      | 1.9       | 0.061    | 0.28      | 0.59      | 0.59      | 0.38      | 0.38      |
| C1-CHRYSENES                                                                                                         | 0.9 J   | 2.6 J     | 2.1 J     | 2.1 J     | 6.5 J     | 0.22 J   | 1.2 J     | 2.8 J     | 2.8 J     | 1.9 J     | 1.9 J     |
| C1-FLUORANTHENES/PYRENES                                                                                             | 1.2 J   | 2.5 J     | 1.9 J     | 1.9 J     | 9.1 J     | 0.19 J   | 1.8 J     | 2.2 J     | 2.2 J     | 1.7 J     | 1.7 J     |
| C1-FLUORENES                                                                                                         | 0.1 J   | 0.26 J    | 0.3 J     | 0.3 J     | 0.74 J    | 0.026 J  | 0.23 J    | 0.3 J     | 0.3 J     | 0.15 J    | 0.15 J    |
| C1-NAPHTHALENES                                                                                                      | 0.041 J | 0.083 J   | 0.092 J   | 0.092 J   | 0.33 J    | 0.016 J  | 0.063 J   | 0.084 J   | 0.084 J   | 0.06 J    | 0.06 J    |
| C1-PHENANTHRENES/ANTHRACENES                                                                                         | 0.43 J  | 1 J       | 0.81 J    | 0.81 J    | 8.2 J     | 0.093 J  | 0.91 J    | 1.3 J     | 1.3 J     | 0.81 J    | 0.81 J    |
| C2-CHRYSENES                                                                                                         | 0.41 J  | 1.2 J     | 0.87 J    | 0.87 J    | 3.4 J     | 0.14 J   | 0.67 J    | 1.5 J     | 1.5 J     | 0.97 J    | 0.97 J    |
| C2-FLUORANTHENES/PYRENES                                                                                             | 0.52 J  | 1.1 J     | 0.8 J     | 0.8 J     | 3.4 J     | 0.079 J  | 0.8 J     | 0.9 J     | 0.9 J     | 0.74 J    | 0.74 J    |
| C2-FLUORENES                                                                                                         | 0.011 U | 0.34 J    | 0.35 J    | 0.35 J    | 0.9 J     | 0.081 J  | 0.42 J    | 0.48 J    | 0.48 J    | 0.34 J    | 0.34 J    |
| C2-NAPHTHALENES                                                                                                      | 0.074 J | 0.17 J    | 0.2 J     | 0.2 J     | 0.94 J    | 0.026 J  | 0.15 J    | 0.16 J    | 0.16 J    | 0.09 J    | 0.09 J    |
| C2-PHENANTHRENES/ANTHRACENES                                                                                         | 0.31 J  | 0.88 J    | 0.65 J    | 0.65 J    | 5.3 J     | 0.085 J  | 0.9 J     | 0.9 J     | 0.9 J     | 0.67 J    | 0.67 J    |
| C3-CHRYSENES                                                                                                         | 0.15 J  | 0.57 J    | 0.48 J    | 0.48 J    | 1.3 J     | 0.075 J  | 0.33 J    | 0.61 J    | 0.61 J    | 0.45 J    | 0.45 J    |
| C3-FLUORANTHENES/PYRENES                                                                                             | 0.32 J  | 0.59 J    | 0.57 J    | 0.57 J    | 2.1 J     | 0.051 J  | 0.65 J    | 0.71 J    | 0.71 J    | 0.52 J    | 0.52 J    |
| C3-FLUORENES                                                                                                         | 0.011 U | 0.013 U   | 0.015 U   | 0.015 U   | 1.2 J     | 0.005 U  | 0.72 J    | 0.49 J    | 0.49 J    | 0.42 J    | 0.42 J    |
| C3-NAPHTHALENES                                                                                                      | 0.096 J | 0.22 J    | 0.26 J    | 0.26 J    | 1.7 J     | 0.056 J  | 0.64 J    | 0.29 J    | 0.29 J    | 0.18 J    | 0.18 J    |
| C3-PHENANTHRENES/ANTHRACENES                                                                                         | 0.26 J  | 0.64 J    | 0.44 J    | 0.44 J    | 2.7 J     | 0.059 J  | 0.89 J    | 0.47 J    | 0.47 J    | 0.38 J    | 0.38 J    |
| C4-CHRYSENES                                                                                                         | 0.011 U | 0.013 U   | 0.015 U   | 0.015 U   | 0.01 U    | 0.033 J  | 0.13 J    | 0.14 J    | 0.14 J    | 0.096 J   | 0.096 J   |
| C4-NAPHTHALENES                                                                                                      | 0.011 U | 0.26 J    | 0.31 J    | 0.31 J    | 0.76 J    | 0.1 J    | 0.88 J    | 0.27 J    | 0.27 J    | 0.2 J     | 0.2 J     |
| C4-PHENANTHRENES/ANTHRACENES                                                                                         | 0.15 J  | 0.25 J    | 0.18 J    | 0.18 J    | 0.98 J    | 0.034 J  | 0.49 J    | 0.23 J    | 0.23 J    | 0.18 J    | 0.18 J    |
| CHRYSENE                                                                                                             | 0.49    | 3.2       | 1.4       | 1.4       | 4.2       | 0.21     | 2.9       | 2.6       | 2.6       | 2.2       | 2.2       |
| DIBENZ(A,H)ANTHRACENE                                                                                                | 0.23    | 0.31      | 0.2       | 0.2       | 0.51      | 0.023    | 0.078     | 0.23      | 0.23      | 0.13      | 0.13      |
| FLUORANTHENE                                                                                                         | 0.66    | 3.9       | 5.2       | 5.2       | 5.5       | 0.35     | 5.3       | 4.3       | 4.3       | 3.8       | 3.8       |
| FLUORENE                                                                                                             | 0.059   | 0.18      | 0.15      | 0.15      | 0.67      | 0.017    | 0.14      | 0.23      | 0.23      | 0.14      | 0.14      |
| INDENO(1,2,3-C,D)PYRENE                                                                                              | 0.33    | 0.54      | 0.33      | 0.33      | 0.81      | 0.037    | 0.15      | 0.31      | 0.31      | 0.19      | 0.19      |
| NAPHTHALENE                                                                                                          | 0.021   | 0.044     | 0.1       | 0.1       | 0.093     | 0.0099   | 0.046     | 0.045     | 0.045     | 0.046     | 0.046     |
| PERYLENE                                                                                                             | 0.21 J  | 0.38      | 0.23      | 0.23      | 0.51      | 0.045    | 0.11      | 0.18      | 0.18      | 0.11      | 0.11      |
| PHENANTHRENE                                                                                                         | 0.47    | 1.9       | 1.1       | 1.1       | 5         | 0.16     | 2.6       | 2.3       | 2.3       | 1.8       | 1.8       |
| PYRENE                                                                                                               | 0.62 J  | 4.2       | 4.3       | 4.3       | 6.1       | 0.24 J   | 3.4       | 2.6       | 2.6       | 2.4       | 2.4       |
| PAHs (total)                                                                                                         | 5 J     | 21 J      | 17 J      | 17 J      | 36 J      | 1.5 J    | 18 J      | 18 J      | 18 J      | 14 J      | 14 J      |

Key at the end of Table

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Table 4-9

Summary of Results of Extended List (34) PAH Analysis

| Sample ID                                |  | R7-191-C-Z1a | R7-193-C-Z1a | R7-194-C-Comp | R7-200-C-Z1a | R7-201-T-Comp | R7-202-T-Z1a | R7-203-T-Z1a | R7-205-T-Z1a |
|------------------------------------------|--|--------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|
| Sample Date                              |  | 6/29/2010    | 6/29/2010    | 6/29/2010     | 6/28/2010    | 6/25/2010     | 6/29/2010    | 6/29/2010    | 6/29/2010    |
| Sample Depth Range (ft)                  |  | 0-0.5        | 0-0.5        | 0-0.6         | 0-0.5        | 0-1.1         | 0-0.5        | 0-0.5        | 0-0.5        |
| SVOAs by MC SVOA (LS) and (SIMS) (mg/kg) |  |              |              |               |              |               |              |              |              |
| 1-METHYLNAPHTHALENE                      |  | 0.041        | 0.088        | 0.35          | 0.009        | 0.006 U       | 0.011 U      | 0.015        | 0.018        |
| 2-METHYLNAPHTHALENE                      |  | 0.044        | 0.075        | 0.29          | 0.0079       | 0.006 U       | 0.011 U      | 0.014        | 0.017        |
| ACENAPHTHENE                             |  | 0.11         | 0.25         | 1.1           | 0.026        | 0.006 U       | 0.011 U      | 0.063        | 0.056        |
| ACENAPHTHYLENE                           |  | 0.1          | 0.23         | 0.31          | 0.014        | 0.0059 J      | 0.011 U      | 0.035        | 0.058        |
| ANTHRACENE                               |  | 0.63         | 1.7          | 1.7 J         | 0.045        | 0.012         | 0.011        | 0.34         | 0.56         |
| BENZO(A)ANTHRACENE                       |  | 4.8          | 4.2          | 9.3           | 0.076        | 0.039         | 0.2          | 0.7          | 0.75         |
| BENZO(A)PYRENE                           |  | 0.57         | 0.69         | 8.9           | 0.081        | 0.019         | 0.054        | 0.27         | 0.14         |
| BENZO(B)FLUORANTHENE                     |  | 0.5          | 0.45         | 0.94          | 0.13 J       | 0.029         | 0.07         | 0.22         | 0.13         |
| BENZO(G,H,I)PERYLENE                     |  | 0.48         | 0.55         | 1.3           | 0.057        | 0.006 U       | 0.029        | 0.27         | 0.14         |
| BENZO(K)FLUORANTHENE                     |  | 0.71         | 3.6          | 1.5           | 0.07         | 0.018         | 0.058        | 0.36         | 0.19         |
| BENZO(E)PYRENE                           |  | 0.72         | 4.5          | 10            | 0.1          | 0.023         | 0.071        | 0.34         | 0.19         |
| C1-CHRYSENES                             |  | 1.6 J        | 2.2 J        | 8.2 J         | 0.25 J       | 0.073 J       | 0.27 J       | 0.69 J       | 0.31 J       |
| C1-FLUORANTHRENE/PYRENES                 |  | 1.9 J        | 2.8 J        | 1.8 J         | 0.43 J       | 0.082 J       | 0.1 J        | 0.73 J       | 0.62 J       |
| C1-FLUORENES                             |  | 0.17 J       | 0.15 J       | 0.67 J        | 0.053 J      | 0.045 J       | 0.011 U      | 0.037 J      | 0.032 J      |
| C1-NAPHTHALENES                          |  | 0.062 J      | 0.12 J       | 0.39 J        | 0.02 J       | 0.006 U       | 0.011 U      | 0.024 J      | 0.027 J      |
| C1-PHENANTHRENE/ANTHRACENES              |  | 1.2 J        | 1.9 J        | 1.5 J         | 0.18 J       | 0.029 J       | 0.018 J      | 0.33 J       | 0.29 J       |
| C2-CHRYSENES                             |  | 0.62 J       | 1.1 J        | 4.1 J         | 0.12 J       | 0.006 U       | 0.011 U      | 0.28 J       | 0.21 J       |
| C2-FLUORANTHRENE/PYRENES                 |  | 0.74 J       | 1.1 J        | 0.72 J        | 0.16 J       | 0.04 J        | 0.095 J      | 0.35 J       | 0.29 J       |
| C2-FLUORENES                             |  | 0.4 J        | 0.34 J       | 0.98 J        | 0.032 J      | 0.006 U       | 0.011 U      | 0.12 J       | 0.005 U      |
| C2-NAPHTHALENES                          |  | 0.091 J      | 0.14 J       | 0.87 J        | 0.027 J      | 0.006 U       | 0.01 J       | 0.023 J      | 0.027 J      |
| C2-PHENANTHRENE/ANTHRACENES              |  | 0.86 J       | 1.4 J        | 1 J           | 0.15 J       | 0.02 J        | 0.018 J      | 0.15 J       | 0.11 J       |
| C3-CHRYSENES                             |  | 0.35 J       | 0.38 J       | 1.5 J         | 0.04 J       | 0.006 U       | 0.011 U      | 0.15 J       | 0.096 J      |
| C3-FLUORANTHRENE/PYRENES                 |  | 0.68 J       | 0.74 J       | 0.39 J        | 0.088 J      | 0.006 U       | 0.038 J      | 0.21 J       | 0.16 J       |
| C3-FLUORENES                             |  | 0.012 U      | 0.007 U      | 0.92 J        | 0.005 U      | 0.006 U       | 0.011 U      | 0.008 U      | 0.005 U      |
| C3-NAPHTHALENES                          |  | 0.16 J       | 0.23 J       | 1.1 J         | 0.049 J      | 0.006 U       | 0.011 U      | 0.039 J      | 0.041 J      |
| C3-PHENANTHRENE/ANTHRACENES              |  | 0.46 J       | 0.79 J       | 0.6 J         | 0.097 J      | 0.006 U       | 0.011 U      | 0.07 J       | 0.048 J      |
| C4-CHRYSENES                             |  | 0.012 U      | 0.053 J      | 0.36 J        | 0.005 U      | 0.006 U       | 0.011 U      | 0.008 U      | 0.066 J      |
| C4-NAPHTHALENES                          |  | 0.16 J       | 0.16 J       | 0.71 J        | 0.005 U      | 0.006 U       | 0.011 U      | 0.019 J      | 0.005 U      |
| C4-PHENANTHRENE/ANTHRACENES              |  | 0.18 J       | 0.28 J       | 0.21 J        | 0.005 U      | 0.006 U       | 0.011 U      | 0.008 U      | 0.005 U      |
| CHRYSENE                                 |  | 2.1 J        | 5.8          | 13            | 0.11         | 0.057         | 0.3          | 1.7          | 1.1          |
| DIBENZ(A,H)ANTHRACENE                    |  | 0.25         | 0.3          | 0.86          | 0.023        | 0.006 U       | 0.013        | 0.14         | 0.066        |
| FLUORANTHENE                             |  | 4.5          | 4.9          | 8.8           | 0.18         | 0.042         | 0.051        | 2.2          | 2.8          |
| FLUORENE                                 |  | 0.2          | 0.3          | 0.93          | 0.033        | 0.006 U       | 0.011 U      | 0.079        | 0.081        |
| INDENO(1,2,3-C,D)PYRENE                  |  | 0.41         | 0.44         | 0.99          | 0.035        | 0.0079        | 0.026        | 0.23         | 0.12         |
| NAPHTHALENE                              |  | 0.053        | 0.066        | 0.21          | 0.01         | 0.006 U       | 0.011 U      | 0.018        | 0.02         |
| PERYLENE                                 |  | 0.3          | 0.37         | 0.61          | 0.04         | 0.05          | 0.031        | 0.13         | 0.076        |
| PHENANTHRENE                             |  | 2.6          | 4.3          | 8.3           | 0.039        | 0.021         | 0.022        | 1.4          | 1.3          |
| PYRENE                                   |  | 4.1          | 4.1          | 11            | 0.13         | 0.033         | 0.058        | 1.5          | 1            |
| PAHs (total)                             |  | 22 J         | 32 J         | 69 J          | 1.1 J        | 0.28 J        | 0.89 J       | 9.5 J        | 8.5 J        |

Key at the end of Table

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Table 4-9  
Summary of Results of Extended List (34) PAH Analysis

Key:

- C = Hand-core creek location/sample.
- Comp = Hand-core creek composite sample.
- CR= Hand-core creek duplicate sample.
- ft = Feet.
- J = Estimated at the concentration listed.
- mg/Kg = Milligrams per kilogram.
- SVOA = Semivolatile organic compounds analysis.
- T = Tributary location/sample.
- U = Non-detect.
- V = Vibracore creek location/sample.
- VR = Vibracore creek duplicate sample.
- Z = Sample depth interval consecutively numbered.

Table 4-10  
Summary of Results of AVS/SEM Analysis

|                          |              | Reach 2      |             |             | Reach 3     |             |          | Reach 4  |          |          |           |
|--------------------------|--------------|--------------|-------------|-------------|-------------|-------------|----------|----------|----------|----------|-----------|
| Sample ID                | R2-002-V-Z1P | R2-005-V-Z1P | R3-016-V-Z1 | R3-018-V-Z1 | R3-020-V-Z1 | R3-027-V-Z1 | R4-028-C | R4-030-C | R4-031-C | R4-034-C | R4-119-T  |
| Sample Date              | 05/18/10     | 05/19/10     | 05/26/10    | 05/25/10    | 05/26/10    | 05/27/10    | 11/17/09 | 11/16/09 | 11/16/09 | 11/17/09 | 11/17/09  |
| Sample depth (ft):       | 0 - 1        | 0 - 1        | 0 - 1       | 0 - 1       | 0 - 1       | 0 - 1       | 0 - 1.55 | 0 - 1.1  | 0 - 0.8  | 0 - 0.4  | 0 - 0.5   |
| AVS (μmole/g)            |              |              |             |             |             |             |          |          |          |          |           |
| Sulfide                  | 0.4873       | 3.3583       | 4.732       | 5.0498      | 4.167       | 0.8616      | 20.8     | 15.3     | 61.1     | 4.1      | 2.1       |
| SEM by SW6010B (μmole/g) |              |              |             |             |             |             |          |          |          |          |           |
| Cadmium                  | 0.0125 J     | 0.0107 J     | 0.0302 J    | 0.0116 J    | 0.0249 J    | 0.0125 J    | 0.014 J  | 0.002 J  | 0.032    | 0.0017 J | 0.00059 J |
| Copper                   | 0.2486 J     | 0.3619       | 0.0346 J    | 0.1007 J    | 0.2298 J    | 1.506       | 0.013 J  | 0.12 J   | 0.006 J  | 0.23     | 0.011 J   |
| Lead                     | 0.7577       | 0.6226       | 2.0415      | 0.7143      | 0.8736      | 0.8929      | 1        | 0.23     | 4.2      | 0.24     | 0.024     |
| Nickel                   | 0.1925 J     | 0.1499 J     | 1.1211      | 0.1823 J    | 0.2454 J    | 0.2709 J    | 0.84     | 0.22 J   | 1.1      | 0.14 J   | 0.013 J   |
| Silver                   | 0.0797 U     | 0.0695 U     | 0.0816 U    | 0.0667 U    | 0.0658 U    | 0.0566 U    | 0.048 U  | 0.04 U   | 0.06 U   | 0.038 U  | 0.031 U   |
| Zinc                     | 5.8428       | 5.1086       | 25.8489     | 7.9688      | 8.3665      | 7.6476      | 15.6     | 2.8      | 64.5     | 2        | 0.1       |

Table 4-10  
Summary of Results of AVS/SEM Analysis

| Reach 5                  |  |             |  |             |  |          |  |          |  |           |  |          | Reach 6 |          |  |          | Reach 7 |          |  |          |  |          |  |           |  |
|--------------------------|--|-------------|--|-------------|--|----------|--|----------|--|-----------|--|----------|---------|----------|--|----------|---------|----------|--|----------|--|----------|--|-----------|--|
| Sample ID                |  | R5-044-V-Z1 |  | R5-050-V-Z1 |  | R5-116-W |  | R6-051-C |  | R6-051-CR |  | R6-052-C |         | R6-053-C |  | R6-055-C |         | R6-058-C |  | R6-061-C |  | R7-068-C |  | R7-068-CR |  |
| Sample Date              |  | 05/20/10    |  | 05/21/10    |  | 11/19/09 |  | 11/19/09 |  | 11/19/09  |  | 11/19/09 |         | 11/19/09 |  | 11/17/09 |         | 11/18/09 |  | 11/18/09 |  | 11/25/09 |  | 11/25/09  |  |
| Sample depth (ft):       |  | 0 - 1       |  | 0 - 1       |  | 0 - 0.5  |  | 0 - 1.2  |  | 0 - 1.2   |  | 0 - 1.3  |         | 0 - 1.2  |  | 0 - 1.1  |         | 0 - 2.2  |  | 0 - 4    |  | 0 - 2.1  |  | 0 - 2.1   |  |
| AVS (μmole/g)            |  |             |  |             |  |          |  |          |  |           |  |          |         |          |  |          |         |          |  |          |  |          |  |           |  |
| Sulfide                  |  | 9.358       |  | 17.586      |  | 1.8      |  | 9        |  | 44.6      |  | 37.4     |         | 54.6     |  | 26.1     |         | 11.6     |  | 15.3     |  | 61.7     |  | 48.6      |  |
| SEM by SW6010B (μmole/g) |  |             |  |             |  |          |  |          |  |           |  |          |         |          |  |          |         |          |  |          |  |          |  |           |  |
| Cadmium                  |  | 0.0347 J    |  | 0.024 J     |  | 0.017 J  |  | 0.004 J  |  | 0.0041 J  |  | 0.023 J  |         | 0.0059 J |  | 0.0056 J |         | 0.0098 J |  | 0.0054 J |  | 0.034 J  |  | 0.027 J   |  |
| Copper                   |  | 0.0692 J    |  | 0.0614 J    |  | 2.5      |  | 0.54     |  | 0.53      |  | 0.29 U   |         | 0.047 J  |  | 0.087 J  |         | 0.4      |  | 0.066 J  |  | 0.32 U   |  | 0.0036 J  |  |
| Lead                     |  | 3.8224      |  | 1.5154      |  | 1.3      |  | 0.45     |  | 0.42      |  | 6.3      |         | 0.84     |  | 0.72     |         | 0.97     |  | 0.44     |  | 3.7      |  | 3.6       |  |
| Nickel                   |  | 1.0939      |  | 0.5895      |  | 0.47 J   |  | 0.14 J   |  | 0.16 J    |  | 0.99     |         | 0.29 J   |  | 0.29 J   |         | 0.18 J   |  | 0.18 J   |  | 1.1      |  | 0.97      |  |
| Silver                   |  | 0.0946 U    |  | 0.0658 U    |  | 0.0029 J |  | 0.067 U  |  | 0.07 U    |  | 0.069 U  |         | 0.096 U  |  | 0.064 U  |         | 0.068 U  |  | 0.066 U  |  | 0.075 U  |  | 0.062 U   |  |
| Zinc                     |  | 42.9795     |  | 13.8422     |  | 7.9      |  | 2.8      |  | 2.9       |  | 21.7     |         | 6.7      |  | 5.6      |         | 5.9      |  | 4.5      |  | 45.4     |  | 41.1      |  |

Table 4-10  
Summary of Results of AVS/SEM Analysis

| Reach 7                  |          |          |          |          |          |          |          |          |          |           |          |          |          |  |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|--|
| Sample ID                | R7-073-C | R7-075-C | R7-083-C | R7-085-C | R7-087-C | R7-089-C | R7-093-C | R7-094-C | R7-095-C | R7-095-CR | R7-099-C | R7-100-C |          |  |
| Sample Date              | 11/24/09 | 11/24/09 | 11/30/09 | 11/30/09 | 11/30/09 | 11/25/09 | 11/24/09 | 11/23/09 | 11/23/09 | 11/23/09  | 11/23/09 | 11/23/09 | 11/23/09 |  |
| Sample depth (ft):       | 0 - 2.4  | 0 - 2.1  | 0 - 3.3  | 0 - 1.6  | 0 - 2.1  | 0 - 2.9  | 0 - 0.9  | 0 - 1    | 0 - 1.3  | 0 - 1.3   | 0 - 1.3  | 0 - 1.3  | 0 - 1.2  |  |
| AVS (μmole/g)            |          |          |          |          |          |          |          |          |          |           |          |          |          |  |
| Sulfide                  | 35.2     | 41.5     | 32.1     | 22.9     | 27.7     | 19       | 19.9     | 49.6     | 11.1     | 9.3       | 35.9     | 7.2      |          |  |
| SEM by SW6010B (μmole/g) |          |          |          |          |          |          |          |          |          |           |          |          |          |  |
| Cadmium                  | 0.016 J  | 0.034 J  | 0.0089 J | 0.013 J  | 0.012 J  | 0.0089 J | 0.0071 J | 0.012 J  | 0.025 J  | 0.028 J   | 0.013 J  | 0.006 J  |          |  |
| Copper                   | 0.074 J  | 0.011 J  | 0.024 J  | 0.0099 J | 0.0083 J | 0.1 J    | 0.022 J  | 0.25 J   | 1.7      | 2         | 0.022 J  | 0.25     |          |  |
| Lead                     | 1.7      | 2.1      | 0.71     | 1.2      | 1        | 0.62     | 0.78     | 1.5      | 1.8      | 2         | 1.2      | 1.1      |          |  |
| Nickel                   | 0.39 J   | 0.99     | 0.2 J    | 0.35 J   | 0.26 J   | 0.25 J   | 0.32 J   | 0.3 J    | 0.45 J   | 0.5       | 0.31 J   | 0.22 J   |          |  |
| Silver                   | 0.068 U  | 0.077 U  | 0.0021 J | 0.0043 J | 0.054 U  | 0.055 U  | 0.062 U  | 0.09 U   | 0.067 U  | 0.064 U   | 0.072 U  | 0.046 U  |          |  |
| Zinc                     | 13.3     | 22.9     | 5.2      | 14.3     | 7.3      | 5.8      | 6.7      | 9.7      | 9.3      | 10.2      | 8.5      | 5        |          |  |

Table 4-10  
Summary of Results of AVS/SEM Analysis

| Recah 7                  |  |          |          |          |             |  |
|--------------------------|--|----------|----------|----------|-------------|--|
| Sample ID                |  | R7-104-C | R7-105-C | R7-106-C | R7-120-T-Z1 |  |
| Sample Date              |  | 12/02/09 | 11/30/09 | 11/30/09 | 11/24/09    |  |
| Sample depth (ft):       |  | 0 - 1    | 0 - 1.4  | 0 - 0.5  | 0 - 0.5     |  |
| AVS (µmole/g)            |  |          |          |          |             |  |
| Sulfide                  |  | 30.1     | 3.8      | 12.1     | 3.9         |  |
| SEM by SW6010B (µmole/g) |  |          |          |          |             |  |
| Cadmium                  |  | 0.0077 J | 0.0098 J | 0.002 J  | 0.0013 J    |  |
| Copper                   |  | 0.039 J  | 0.035 J  | 0.066 J  | 0.035 J     |  |
| Lead                     |  | 2.2      | 2.6      | 0.36     | 0.046       |  |
| Nickel                   |  | 0.39 J   | 0.52     | 0.11 J   | 0.031 J     |  |
| Silver                   |  | 0.0051 J | 0.0083 J | 0.0022 J | 0.045 U     |  |
| Zinc                     |  | 7.2      | 11.3     | 1.8      | 0.36        |  |

Key:

- AVS = Acid Volatile Sulfides
- C = Hand-core creek location/sample.
- CR = Duplicate hand-core creek sample.
- ft = Feet.
- J = Estimated at the concentration listed.
- µmole/g = Micromole per gram.
- P = Ponar creek location/sample.
- SEM = Simultaneously extracted metals.
- T = Tributary location/sample.
- U = Non-detect.
- V = Vibracore creek location/sample.
- W = Wetland location/sample.
- Z = Sample depth interval consecutively numbered.

Table 4-11  
Comparison of TCLP Metals Analysis Results versus Total Metals Analysis Results

| Sample ID<br>Sample Date<br>Sample Depth (ft) | Reach 2           |                   |                   |                   |                   |                   | Reach 3           |                   |                  |                |                  |                |
|-----------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|----------------|------------------|----------------|
|                                               | R2-002-V-Z4       | R2-005-V-Z3       | R2-005-V-Z4       | R2-008-V-Z3       | R2-014-V-Z4       | R2-014-V-Z6       | R3-017-V-Z4       | R3-017-V-Z6       |                  |                |                  |                |
|                                               | 05/18/10<br>3 - 4 | 05/19/10<br>2 - 3 | 05/19/10<br>3 - 4 | 05/19/10<br>2 - 3 | 05/25/10<br>3 - 4 | 05/25/10<br>6 - 8 | 05/26/10<br>3 - 4 | 05/26/10<br>6 - 8 |                  |                |                  |                |
| Method                                        | Total<br>(mg/kg)  | TCLP<br>(mg/L)    | Total<br>(mg/kg)  | TCLP<br>(mg/L)    | Total<br>(mg/kg)  | TCLP<br>(mg/L)    | Total<br>(mg/kg)  | TCLP<br>(mg/L)    | Total<br>(mg/kg) | TCLP<br>(mg/L) | Total<br>(mg/kg) | TCLP<br>(mg/L) |
| Analyte                                       |                   |                   |                   |                   |                   |                   |                   |                   |                  |                |                  |                |
| Arsenic                                       | 29.3 J            | 0.2 U             | 25 J              | 0.2 U             | 22.8 J            | 0.2 U             | 12.7 J            | 0.2 U             | 10.3 J           | 0.2 U          | 14.9 J           | 0.2 U          |
| Barium                                        | 378 J             | 0.109             | 368 J             | 0.156             | 372 J             | 0.148             | 337 J             | 0.095             | 321 J            | 0.449          | 313 J            | 0.08           |
| Cadmium                                       | 8.9 J             | 0.02 U            | 17.5 J            | 0.02 U            | 12.9 J            | 0.02 U            | 17.9 J            | 0.02 U            | 8.6 J            | 0.02 U         | 27.9 J           | 0.02 U         |
| Chromium                                      | 1200 J            | 0.05 U            | 1780 J            | 0.05 U            | 1100 J            | 0.05 U            | 1670 J            | 0.05 U            | 547 J            | 0.05 U         | 2090 J           | 0.05 U         |
| Lead                                          | 6760 J            | 0.15 U            | 3970 J            | 0.15 U            | 5060 J            | 0.15 U            | 5490 J            | 0.396             | 4500 J           | 2.33           | 5500 J           | 0.304          |
| Selenium                                      | 1.1 U.            | 0.3 U             | 1.2 J             | 0.3 U             | 1 U.              | 0.3 U             | 4.1 J             | 0.3 U             | 1.1 J            | 0.3 U          | 2.1 J            | 0.3 U          |
| Silver                                        | 4.3 J             | 0.05 U            | 3.8 J             | 0.05 U            | 5.7 J             | 0.05 U            | 5.7 J             | 0.05 U            | 10 J             | 0.05 U         | 5.5 J            | 0.05 U         |

Key at the end of table

Table Page 1 of 3 Pages



Table 4-11

Comparison of TCLP Metals Analysis Results versus Total Metals Analysis Results

| Sample ID<br>Sample Date<br>Sample Depth (ft) | Reach 5            |                    |                    | Reach 6            |                       |                       | Reach 7               |                      |                     |
|-----------------------------------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|----------------------|---------------------|
|                                               | R5-049-V-Z2        | R5-049-V-Z3        | R5-050-V-Z2        | R5-050-V-Z4        | R6-052-C              | R7-069-C              | R7-105-C              |                      |                     |
|                                               | 05/21/10<br>1 - 2  | 05/21/10<br>2 - 3  | 05/21/10<br>1 - 2  | 05/21/10<br>3 - 4  | 11/19/2009<br>0 - 1.3 | 11/25/2009<br>0 - 2.4 | 11/30/2009<br>0 - 1.4 |                      |                     |
| Method                                        | TCLP Metals (mg/L) | TCLP Metals (mg/L) | TCLP Metals (mg/L) | TCLP Metals (mg/L) | TCLP Metals (mg/L)    | TCLP Metals (mg/L)    | TCLP Metals (mg/L)    | Total Metals (mg/kg) | Total Metals (mg/L) |
| Analyte                                       |                    |                    |                    |                    |                       |                       |                       |                      |                     |
| Arsenic                                       | 7 J                | 0.2 U              | 10.7 J             | 0.2 U              | 7.9 J                 | 0.2 U                 | 13.4 J                | 0.2 U                | 10.7                |
| Barium                                        | 234 J              | 0.192              | 257 J              | 0.165              | 252 J                 | 0.536                 | 300 J                 | 0.286                | 308                 |
| Cadmium                                       | 12.1 J             | 0.02 U             | 13.5 J             | 0.02 U             | 10.8 J                | 0.02 U                | 11.6 J                | 0.02 U               | 7.1                 |
| Chromium                                      | 434 J              | 0.05 U             | 1240 J             | 0.05 U             | 826 J                 | 0.05 U                | 1070 J                | 0.05 U               | 539 J               |
| Lead                                          | 1150 J             | 0.15 U             | 2180 J             | 0.225              | 1830 J                | 1.12                  | 6130 J                | 1.79                 | 3790 J              |
| Selenium                                      | 1.8 J              | 0.3 U              | 3.7 J              | 0.3 U              | 2.3 J                 | 0.3 U                 | 2.6 J                 | 0.3 U                | 3.4 J               |
| Silver                                        | 3.9 J              | 0.05 U             | 4 J                | 0.05 U             | 2.6 J                 | 0.05 U                | 6.9 J                 | 0.05 U               | 6 J-                |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.06 U              |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.06 U              |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.389               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 222 J               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.349               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 4.7                 |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.023               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.015 U             |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 349                 |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.015 U             |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 443 J               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 1630 J              |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 1.6                 |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.088 U             |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 3.8 J               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.088 U             |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 1.2 U               |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.088 U             |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.011 U             |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 1.2 J-              |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 4.6 J-              |
|                                               |                    |                    |                    |                    |                       |                       |                       |                      | 0.011 U             |

Key:

-C = Hand-core creek location/sample.

ft = Feet.

J = Estimated at the concentration listed.

mg/Kg = Milligrams per kilogram.

mg/L = Milligrams per liter.

-P = Ponar creek location/sample.

TCLP = Toxicity characteristic leaching procedure.

U = Non-detect.

UJ = Non-detect/estimated.

-V = Vibracore creek location/sample.

-Z = Sample depth interval consecutively numbered.



Table 4-12a

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2009

| Reach   | Location | Sample ID | Sample Date | Sample Depth (ft) | Bottom Plate | % Retained by |               |              |              |              |              |              |
|---------|----------|-----------|-------------|-------------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
|         |          |           |             |                   |              | Sieve No. 200 | Sieve No. 100 | Sieve No. 50 | Sieve No. 35 | Sieve No. 16 | Sieve No. 10 | Sieve No. 10 |
| Reach 3 | R3-107-W | R3-107-W  | 11/16/09    | 0-0.5             | 54.7         | 12.8          | 11.4          | 8.1          | 11.9         | 1.1          | 0            | 0            |
|         | R3-108-W | R3-108-W  | 11/16/09    | 0-0.5             | 60.2         | 14.1          | 13.5          | 8.5          | 3.6          | 0            | 0            | 0            |
|         | R3-109-W | R3-109-W  | 11/16/09    | 0-0.5             | 59.2         | 14.5          | 13.5          | 8.6          | 4.2          | 0            | 0            | 0            |
|         | R3-110-W | R3-110-W  | 11/16/09    | 0-0.5             | 61.2         | 12.5          | 10.7          | 7.5          | 7.7          | 0.3          | 0.001        | 0.001        |
| Reach 4 | R4-028-C | R4-028-C  | 11/17/09    | 0-1.55            | 61.3         | 10.3          | 10.3          | 7.6          | 10.2         | 0.3          | 0            | 0            |
|         | R4-029-C | R4-029-C  | 11/16/09    | 0-1.2             | 62.1         | 12.9          | 10            | 5.7          | 8.7          | 0.6          | 0            | 0            |
|         | R4-030-C | R4-030-C  | 11/16/09    | 0-1.1             | 48.4         | 6.9           | 7             | 7.7          | 27.4         | 2.7          | 0.002        | 0.002        |
|         | R4-031-C | R4-031-C  | 11/16/09    | 0-0.8             | 58.2         | 13.3          | 11.3          | 7.1          | 9.2          | 1            | 0.001        | 0.001        |
|         | R4-032-C | R4-032-C  | 11/16/09    | 0-0.7             | 53.2         | 12.9          | 12.6          | 10           | 11.1         | 0.1          | 0            | 0            |
|         | R4-033-C | R4-033-C  | 11/17/09    | 0-0.4             | 66.1         | 4.4           | 3.8           | 3.8          | 18           | 3.8          | 0.002        | 0.002        |
|         | R4-034-C | R4-034-C  | 11/17/09    | 0-0.4             | 50.6         | 6.3           | 5.8           | 6.3          | 25.5         | 4.2          | 1.2          | 1.2          |
| Reach 5 | R4-035-C | R4-035-C  | 11/17/09    | 0-0.8             | 52.4         | 10.4          | 12.7          | 11.3         | 12.8         | 0.4          | 0            | 0            |
|         | R4-036-C | R4-036-C  | 11/17/09    | 0-0.9             | 51.1         | 11.4          | 13.2          | 10.1         | 13.7         | 0.5          | 0            | 0            |
|         | R4-037-C | R4-037-C  | 11/17/09    | 0-0.6             | 44.8         | 9.4           | 12.2          | 13.1         | 19.1         | 1.3          | 0.03         | 0.03         |
|         | R4-038-C | R4-038-C  | 11/18/09    | 0-0.4             | 54.8         | 9.7           | 8.5           | 7.4          | 18.4         | 1.2          | 0.001        | 0.001        |
|         | R4-111-W | R4-111-W  | 11/16/09    | 0-0.5             | 80.6         | 10.2          | 6.3           | 1.3          | 1.6          | 0.02         | 0            | 0            |
|         | R4-112-W | R4-112-W  | 11/18/09    | 0-0.5             | 77.5         | 9.7           | 8.4           | 2.6          | 1.8          | 0.05         | 0            | 0            |
|         | R4-119-T | R4-119-T  | 11/17/09    | 0-0.5             | 80.4         | 9.8           | 6.3           | 1.4          | 1.8          | 0.4          | 0            | 0            |
| Reach 6 | R4-126-H | R4-126-H  | 11/16/09    | 0-0.5             | 52.8         | 12.1          | 10.8          | 8.2          | 15.4         | 0.8          | 0            | 0            |
|         | R5-113-W | R5-113-W  | 11/18/09    | 0-0.5             | 72.5         | 10.2          | 9.1           | 4            | 4            | 0.2          | 0            | 0            |
|         | R5-114-W | R5-114-W  | 11/18/09    | 0-0.5             | 59           | 10.3          | 9.2           | 8.4          | 12.7         | 0.4          | 0            | 0            |
|         | R5-115-W | R5-115-W  | 11/18/09    | 0-0.5             | 43.7         | 14.1          | 13.7          | 13           | 15.4         | 0.2          | 0            | 0            |
|         | R5-116-W | R5-116-W  | 11/19/09    | 0-0.5             | 76.1         | 11            | 9             | 2.6          | 1.4          | 0            | 0            | 0            |
|         | R5-127-H | R5-127-H  | 11/18/09    | 0-0.5             | 48.9         | 18            | 9.5           | 7.4          | 15.8         | 0.4          | 0            | 0            |
|         | R6-051-C | R6-051-C  | 11/19/09    | 0-1.2             | 58.5         | 11.1          | 10.9          | 8.1          | 10.5         | 0.8          | 0            | 0            |
| Reach 6 | R6-051-C | R6-051-CR | 11/19/09    | 0-1.2             | 56           | 11.3          | 10.8          | 8.1          | 12           | 1.8          | 0.02         | 0.02         |
|         | R6-052-C | R6-052-C  | 11/19/09    | 0-1.3             | 67.6         | 12.1          | 9.9           | 5.5          | 4.8          | 0.1          | 0            | 0            |
|         | R6-053-C | R6-053-C  | 11/19/09    | 0-1.2             | 64.9         | 12.5          | 9.4           | 5.5          | 7.3          | 0.4          | 0.001        | 0.001        |
|         | R6-054-C | R6-054-C  | 12/02/09    | 0-0.5             | 56.8         | 13.2          | 12            | 7.4          | 10.2         | 0.3          | 0            | 0            |
|         | R6-055-C | R6-055-C  | 11/17/09    | 0-1.1             | 62.2         | 11.8          | 9.3           | 6.5          | 9.9          | 0.3          | 0            | 0            |
|         | R6-056-C | R6-056-C  | 11/17/09    | 0-1.2             | 56.8         | 9.2           | 9.2           | 8.7          | 14.8         | 1.2          | 0.001        | 0.001        |
|         | R6-056-C | R6-056-CR | 11/17/09    | 0-1.2             | 52.5         | 8.8           | 9             | 9.1          | 19.8         | 0.8          | 0            | 0            |
| Reach 6 | R6-057-C | R6-057-C  | 11/17/09    | 0-1.4             | 80.7         | 11.8          | 6.4           | 0.6          | 0.4          | 0.02         | 0            | 0            |

Table 4-12a

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2009

| Reach    | Location | Sample ID | Sample Date | Sample Depth (ft) | Bottom Plate | % Retained by |              |             |             |             |              |  |
|----------|----------|-----------|-------------|-------------------|--------------|---------------|--------------|-------------|-------------|-------------|--------------|--|
|          |          |           |             |                   |              | Sieve No. 200 | Sieve No.100 | Sieve No.50 | Sieve No.35 | Sieve No.16 | Sieve No. 10 |  |
| Reach 6  | R6-058-C | R6-058-C  | 11/18/09    | 0-2.2             | 71.2         | 11.1          | 7.9          | 4.1         | 5.4         | 0.2         | 0            |  |
|          | R6-059-C | R6-059-C  | 11/18/09    | 0-1.3             | 70.7         | 12.8          | 8.6          | 5           | 2.8         | 0.03        | 0            |  |
|          | R6-060-C | R6-060-C  | 11/18/09    | 0-0.8             | 77.3         | 13.4          | 7.8          | 0.9         | 0.6         | 0           | 0            |  |
|          | R6-061-C | R6-061-C  | 11/18/09    | 0-4               | 73.4         | 12.2          | 7.9          | 2.6         | 3.6         | 0.2         | 0            |  |
|          | R6-062-C | R6-062-C  | 11/19/09    | 0-3.7             | 67.9         | 12            | 8.4          | 4.4         | 7.1         | 0.3         | 0            |  |
|          | R6-063-C | R6-063-C  | 11/19/09    | 0-1.1             | 63.7         | 10.9          | 9            | 6.7         | 9.3         | 0.4         | 0            |  |
|          | R6-064-C | R6-064-C  | 11/19/09    | 0-1.4             | 58.8         | 10.7          | 9.4          | 7.7         | 12.5        | 0.9         | 0            |  |
|          | R6-065-C | R6-065-C  | 11/19/09    | 0-2.4             | 48.5         | 10.5          | 11.1         | 9.5         | 18.8        | 1.2         | 0.3          |  |
|          | R6-066-C | R6-066-C  | 11/25/09    | 0-1.9             | 69.9         | 12.3          | 8.6          | 4.2         | 4.9         | 0.1         | 0            |  |
|          | R6-067-C | R6-067-C  | 11/25/09    | 0-2.1             | 67.1         | 11.2          | 8.8          | 4.5         | 7.8         | 0.5         | 0            |  |
|          | R6-117-W | R6-117-W  | 12/02/09    | 0-0.5             | 75.5         | 8.7           | 8            | 4.8         | 3           | 0.02        | 0            |  |
|          | R6-128-H | R6-128-H  | 12/02/09    | 0-0.5             | 69.7         | 11.9          | 10.4         | 5           | 2.9         | 0.03        | 0            |  |
|          | R6-129-H | R6-129-H  | 12/02/09    | 0-0.5             | 89           | 8             | 3            | 0.07        | 0           | 0           | 0            |  |
| Reach 7  | R7-068-C | R7-068-C  | 11/25/09    | 0-2.1             | 73.3         | 11.9          | 9.7          | 2.7         | 2.4         | 0.02        | 0            |  |
|          | R7-068-C | R7-068-CR | 11/25/09    | 0-2.1             | 66           | 12.7          | 10.1         | 5.9         | 5.3         | 0.1         | 0            |  |
|          | R7-069-C | R7-069-C  | 11/25/09    | 0-2.4             | 76.6         | 11.7          | 7.7          | 1.9         | 2           | 0           | 0            |  |
|          | R7-070-C | R7-070-C  | 11/25/09    | 0-2.4             | 69.8         | 12.9          | 9.6          | 4.1         | 3.7         | 0           | 0            |  |
|          | R7-071-C | R7-071-C  | 11/25/09    | 0-1.5             | 64.1         | 13.4          | 10.1         | 5.7         | 6.5         | 0.1         | 0            |  |
|          | R7-072-C | R7-072-C  | 11/24/09    | 0-0.8             | 67.2         | 15.3          | 13           | 3.7         | 0.8         | 0           | 0            |  |
|          | R7-073-C | R7-073-C  | 11/24/09    | 0-2.4             | 67           | 16.5          | 10.9         | 3.3         | 2.2         | 0           | 0            |  |
|          | R7-074-C | R7-074-C  | 11/24/09    | 0-2.3             | 63           | 17.5          | 12.7         | 4.5         | 2.2         | 0.01        | 0            |  |
|          | R7-075-C | R7-075-C  | 11/24/09    | 0-2.1             | 73.1         | 11.5          | 8.1          | 3.5         | 3.8         | 0.04        | 0            |  |
|          | R7-076-C | R7-076-C  | 11/24/09    | 0-2               | 62           | 16.9          | 13           | 4.9         | 3.1         | 0.2         | 0            |  |
|          | R7-077-C | R7-077-C  | 11/24/09    | 0-1.2             | 69.4         | 13.9          | 9.7          | 3.7         | 3.2         | 0.2         | 0            |  |
|          | R7-078-C | R7-078-C  | 12/02/09    | 0-4               | 61.8         | 13.2          | 11           | 7           | 7           | 0.1         | 0            |  |
|          | R7-079-C | R7-079-C  | 12/02/09    | 0-2.4             | 60           | 13.1          | 11.4         | 7.1         | 8.3         | 0.1         | 0            |  |
|          | R7-080-C | R7-080-C  | 12/02/09    | 0-1.7             | 64.3         | 14.2          | 11           | 4.9         | 5.4         | 0.2         | 0            |  |
|          | R7-081-C | R7-081-C  | 12/02/09    | 0-1.7             | 42.5         | 16.2          | 12.8         | 12.1        | 16.4        | 0.1         | 0            |  |
|          | R7-082-C | R7-082-C  | 11/30/09    | 0-1.6             | 62.8         | 14.2          | 12.7         | 6.6         | 3.8         | 0.01        | 0            |  |
|          | R7-082-C | R7-082-CR | 11/30/09    | 0-1.6             | 61.5         | 14.3          | 13.1         | 7.2         | 3.9         | 0.07        | 0            |  |
| R7-083-C | R7-083-C | 11/30/09  | 0-3.3       | 55.2              | 13.2         | 10.7          | 8.5          | 12.1        | 0.2         | 0           |              |  |
| R7-084-C | R7-084-C | 11/30/09  | 0-3.3       | 47.9              | 16.6         | 14.4          | 10.2         | 10.9        | 0.03        | 0           |              |  |
| R7-085-C | R7-085-C | 11/30/09  | 0-1.6       | 45.7              | 15.6         | 14            | 11.2         | 13.2        | 0.3         | 0           |              |  |

Table 4-12a

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2009

| Reach   | Location | Sample ID   | Sample Date | Sample Depth (ft) | Bottom Plate | % Retained by |              |             |             |             |              |                 |
|---------|----------|-------------|-------------|-------------------|--------------|---------------|--------------|-------------|-------------|-------------|--------------|-----------------|
|         |          |             |             |                   |              | Sieve No. 200 | Sieve No.100 | Sieve No.50 | Sieve No.35 | Sieve No.16 | Sieve No. 10 | Sieve No. 0.001 |
| Reach 7 | R7-086-C | R7-086-C    | 11/30/09    | 0-3.2             | 43.8         | 12.5          | 12.1         | 11.8        | 19.2        | 0.6         | 0.001        |                 |
|         | R7-087-C | R7-087-C    | 11/30/09    | 0-2.1             | 59.4         | 16.7          | 12.9         | 7.2         | 3.7         | 0.04        | 0            |                 |
|         | R7-088-C | R7-088-C    | 11/25/09    | 0-1               | 61.8         | 13.3          | 12.2         | 6.8         | 4.8         | 0.02        | 0            |                 |
|         | R7-089-C | R7-089-C    | 11/25/09    | 0-2.9             | 33.5         | 12            | 14.3         | 13.7        | 24.8        | 1.6         | 0            |                 |
|         | R7-090-C | R7-090-C    | 11/25/09    | 0-3.5             | 60.2         | 13.2          | 11.9         | 7.4         | 7           | 0.2         | 0            |                 |
|         | R7-091-C | R7-091-C    | 11/24/09    | 0-1.4             | 44.5         | 19.1          | 18.8         | 12.4        | 5.2         | 0           | 0            |                 |
|         | R7-092-C | R7-092-C    | 11/24/09    | 0-1               | 53.1         | 14.5          | 13.3         | 9.4         | 9.7         | 0.07        | 0            |                 |
|         | R7-093-C | R7-093-C    | 11/24/09    | 0-0.9             | 43.7         | 15.3          | 13.9         | 13          | 14          | 0.07        | 0            |                 |
|         | R7-094-C | R7-094-C    | 11/23/09    | 0-1               | 62.1         | 13.6          | 11.2         | 7.2         | 5.9         | 0.07        | 0            |                 |
|         | R7-095-C | R7-095-C    | 11/23/09    | 0-1.3             | 61.9         | 18.1          | 13.6         | 4           | 2.2         | 0.07        | 0            |                 |
|         | R7-095-C | R7-095-CR   | 11/23/09    | 0-1.3             | 59.7         | 17            | 12.8         | 6.1         | 4.4         | 0.01        | 0            |                 |
|         | R7-096-C | R7-096-C    | 11/23/09    | 0-1.3             | 52           | 21.9          | 17           | 6.3         | 2.8         | 0.04        | 0            |                 |
|         | R7-097-C | R7-097-C    | 11/23/09    | 0-0.9             | 42.4         | 18.5          | 19.2         | 13.3        | 6.7         | 0.01        | 0            |                 |
|         | R7-098-C | R7-098-C    | 11/23/09    | 0-1.9             | 38.6         | 16.1          | 15.3         | 15          | 14.9        | 0.1         | 0            |                 |
|         | R7-099-C | R7-099-C    | 11/23/09    | 0-1.3             | 37.3         | 15.4          | 14.3         | 12.2        | 20          | 0.8         | 0.01         |                 |
|         | R7-100-C | R7-100-C    | 11/23/09    | 0-1.2             | 69.3         | 16.6          | 11.8         | 1.9         | 0.5         | 0           | 0            |                 |
|         | R7-101-C | R7-101-C    | 11/30/09    | 0-0.5             | 46.7         | 16.9          | 15.4         | 11.2        | 9.8         | 0.06        | 0            |                 |
|         | R7-102-C | R7-102-C    | 11/30/09    | 0-1.5             | 65.6         | 14.6          | 11.5         | 4.9         | 3.4         | 0.05        | 0            |                 |
|         | R7-103-C | R7-103-C    | 11/30/09    | 0-2.3             | 59.2         | 13.5          | 12           | 7.8         | 7.3         | 0.1         | 0            |                 |
|         | R7-104-C | R7-104-C    | 12/02/09    | 0-1               | 54.2         | 13            | 14.1         | 10          | 8.7         | 0           | 0            |                 |
|         | R7-105-C | R7-105-C    | 11/30/09    | 0-1.4             | 59.4         | 14.8          | 12.9         | 7.6         | 5.3         | 0.06        | 0            |                 |
|         | R7-106-C | R7-106-C    | 11/30/09    | 0-0.5             | 42.7         | 15.1          | 18           | 13.5        | 10.5        | 0.2         | 0            |                 |
|         | R7-118-W | R7-118-W    | 11/30/09    | 0-0.5             | 70           | 10.6          | 10.1         | 6.4         | 2.9         | 0           | 0            |                 |
|         | R7-120-T | R7-120-T-Z1 | 11/24/09    | 0-0.5             | 82.2         | 9.5           | 6.1          | 1.1         | 1.1         | 0           | 0            |                 |
|         | R7-120-T | R7-120-T-Z2 | 11/24/09    | 0.5-2.1           | 77.1         | 8.9           | 8.4          | 3.2         | 2.4         | 0           | 0            |                 |
|         | R7-121-T | R7-121-T-Z1 | 12/02/09    | 0-0.5             | 63.9         | 12            | 11.4         | 7.6         | 5.2         | 0           | 0            |                 |
|         | R7-122-T | R7-122-T-Z1 | 11/25/09    | 0-0.5             | 54.7         | 12.2          | 12.9         | 11.7        | 8.5         | 0.02        | 0            |                 |
|         | R7-122-T | R7-122-T-Z2 | 11/25/09    | 0.5-1             | 54           | 16.4          | 16.2         | 9.3         | 4.1         | 0.02        | 0            |                 |
|         | R7-123-T | R7-123-T-Z1 | 11/23/09    | 0-0.5             | 80.2         | 12.1          | 6.7          | 0.8         | 0.2         | 0.01        | 0            |                 |
|         | R7-123-T | R7-123-T-Z2 | 11/23/09    | 0.5-1             | 81.2         | 9.2           | 6.4          | 1.2         | 1.9         | 0.07        | 0            |                 |
|         | R7-124-T | R7-124-T-Z1 | 11/23/09    | 0-0.4             | 69.1         | 6.5           | 7.8          | 7           | 9           | 0.5         | 0            |                 |
|         | R7-125-T | R7-125-T-Z1 | 11/30/09    | 0-0.5             | 53           | 12.3          | 12.3         | 9.8         | 12.4        | 0.2         | 0            |                 |
|         | R7-125-T | R7-125-T-Z2 | 11/30/09    | 0.5-0.8           | 56.3         | 13.9          | 12.4         | 9.1         | 9           | 0.3         | 0            |                 |

Key at the end of Table

Table Page 3 of 4 Pages

Table 4-12a

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2009

| Reach   | Location | Sample ID | Sample Date | Sample Depth (ft) | % Retained by |               |              |             |             |             |              |
|---------|----------|-----------|-------------|-------------------|---------------|---------------|--------------|-------------|-------------|-------------|--------------|
|         |          |           |             |                   | Bottom Plate  | Sieve No. 200 | Sieve No.100 | Sieve No.50 | Sieve No.35 | Sieve No.16 | Sieve No. 10 |
| Reach 7 | R7-130-H | R7-130-H  | 11/30/09    | 0-0.5             | 79.2          | 10.6          | 6.9          | 1.6         | 1.6         | 0.02        | 0            |
|         | R7-131-H | R7-131-H  | 11/30/09    | 0-0.5             | 60.3          | 13.6          | 12.9         | 8.8         | 4.5         | 0           | 0            |
|         | R7-132-H | R7-132-H  | 11/25/09    | 0-0.5             | 54.5          | 14.4          | 14           | 9.8         | 7.2         | 0.08        | 0            |
|         | R7-133-H | R7-133-H  | 11/24/09    | 0-0.5             | 77.9          | 10.6          | 7.4          | 2.3         | 1.8         | 0           | 0            |
|         | R7-134-H | R7-134-H  | 11/23/09    | 0-0.5             | 58.8          | 9             | 11.1         | 9.7         | 11.1        | 0.2         | 0            |

Key:

-C = Hand-core creek location/sample.  
 -Comp = Hand-core creek composite sample.  
 -C R= Duplicate hand-core creek sample.  
 ft = Feet.

-H = Historical channel location/sample.  
 -P = Ponar creek location/sample.  
 -T = Tributary location/sample.  
 -V = Vibracore creek location/sample.

-W = Wetland location/sample.  
 -Z = Sample depth interval consecutively numbered.

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach      | Location     | Sample ID    | Sample Date | Sample Depth (ft) | % Passing |      |       |      |       |      |       |      |       |     |       |     |       |     |       |     |       |         |      |       |       |       |
|------------|--------------|--------------|-------------|-------------------|-----------|------|-------|------|-------|------|-------|------|-------|-----|-------|-----|-------|-----|-------|-----|-------|---------|------|-------|-------|-------|
|            |              |              |             |                   | Sieve     |      | Sieve |      | Sieve |      | Sieve |      | Sieve |     | Sieve |     | Sieve |     | Sieve |     | Sieve |         |      |       |       |       |
|            |              |              |             |                   | No.       | 200  | No.   | 100  | No.   | 80   | No.   | 60   | No.   | 40  | No.   | 20  | No.   | 10  | No.   | 4   | No.   | microns | 9500 | 19000 | 25000 | 37500 |
| Reach 2    | R2-001-V-P   | R2-001-V-Z1P | 05/18/10    | 0-1               | 99.1      | 99.3 | 99.3  | 99.3 | 99.3  | 99.4 | 99.5  | 99.5 | 99.5  | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-001-V     | R2-001-V-Z2  | 05/18/10    | 1-2               | 98.7      | 98.9 | 98.9  | 99   | 99.2  | 99.5 | 99.5  | 99.8 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-001-V     | R2-001-V-Z3  | 05/18/10    | 2-3               | 97.9      | 98.8 | 98.9  | 98.9 | 99    | 99.3 | 99.4  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-001-V     | R2-001-V-Z4  | 05/18/10    | 3-4               | 97.3      | 97.8 | 97.9  | 98   | 98.4  | 99   | 99.4  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-001-V     | R2-001-V-Z5  | 05/18/10    | 4-5               | 87.9      | 91.5 | 92.1  | 93.1 | 95    | 97.7 | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-001-V     | R2-001-V-Z6  | 05/18/10    | 6-7               | 91.5      | 95.4 | 96    | 96.9 | 97.7  | 98.5 | 99.4  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V-P   | R2-002-V-Z1P | 05/18/10    | 0-1               | 98.5      | 98.7 | 98.7  | 98.7 | 98.9  | 98.9 | 99    | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-Z1  | 05/18/10    | 0-1               | 98.8      | 98.9 | 98.9  | 98.9 | 98.9  | 98.9 | 98.9  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-Z2  | 05/18/10    | 1-2               | 97.7      | 98   | 98.1  | 98.2 | 98.7  | 99.3 | 99.5  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-Z3  | 05/18/10    | 2-3               | 98.9      | 98.9 | 98.9  | 98.9 | 99    | 99.2 | 99.3  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-Z4  | 05/18/10    | 3-4               | 96.4      | 97.5 | 97.6  | 97.7 | 98.1  | 99   | 99.5  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-Z5  | 05/18/10    | 4-6               | 88        | 95.8 | 96.4  | 97   | 97.6  | 98.4 | 98.9  | 99.7 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-R   | 05/18/10    | 4-6               | 88.6      | 95.9 | 96.5  | 97   | 97.7  | 98.5 | 99.4  | 99.8 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-002-V     | R2-002-V-Z6  | 05/18/10    | 6-7.5             | 90.5      | 97.2 | 97.6  | 98.1 | 98.6  | 99   | 99.4  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V-P   | R2-003-V-Z1P | 05/18/10    | 0-1               | 98.5      | 99.2 | 99.2  | 99.3 | 99.4  | 99.4 | 99.5  | 99.5 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V     | R2-003-V-Z1  | 05/18/10    | 0-1               | 98        | 98.3 | 98.3  | 98.5 | 98.6  | 98.6 | 98.9  | 99.4 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V     | R2-003-V-Z2  | 05/18/10    | 1-2               | 99.4      | 99.5 | 99.5  | 99.7 | 99.7  | 99.7 | 99.8  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V     | R2-003-V-Z3  | 05/18/10    | 2-3               | 98.3      | 98.9 | 99    | 99.2 | 99.5  | 99.6 | 99.8  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V     | R2-003-V-Z4  | 05/18/10    | 3-4               | 98.9      | 99.2 | 99.2  | 99.4 | 99.5  | 99.6 | 99.7  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V     | R2-003-V-Z5  | 05/18/10    | 4-5               | 96.2      | 96.7 | 96.8  | 97.2 | 97.8  | 99.1 | 99.9  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-003-V     | R2-003-V-Z6  | 05/18/10    | 6-7               | 55.4      | 76.5 | 80.2  | 83.7 | 86.9  | 91.3 | 93.9  | 98.5 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-004-V-P   | R2-004-V-Z1P | 05/18/10    | 0-1               | 99.5      | 99.7 | 99.7  | 99.8 | 99.8  | 100  | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-004-V     | R2-004-V-Z1  | 05/18/10    | 0-1               | 99.5      | 99.7 | 99.7  | 99.8 | 99.8  | 99.9 | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-004-V     | R2-004-V-Z2  | 05/18/10    | 1-2               | 99.6      | 99.7 | 99.7  | 99.8 | 99.9  | 99.9 | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
|            | R2-004-V     | R2-004-V-Z3  | 05/18/10    | 2-3               | 98.1      | 99.1 | 99.2  | 99.4 | 99.6  | 99.9 | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   | 100   |
| R2-004-V   | R2-004-V-Z4  | 05/18/10     | 3-3.5       | 98.4              | 98.9      | 98.9 | 99    | 99.3 | 99.7  | 100  | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   |       |
| R2-004-V   | R2-004-V-R   | 05/18/10     | 1-2         | 99.4              | 99.5      | 99.6 | 99.9  | 100  | 100   | 100  | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   |       |
| R2-004-V   | R2-004-V-Z5  | 05/18/10     | 4.5-5       | 77.8              | 83.7      | 84.7 | 86.1  | 88   | 91    | 92.4 | 95.7  | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   |       |
| R2-005-V-P | R2-005-V-Z1P | 05/19/10     | 0-1         | 99.4              | 99.7      | 99.7 | 99.8  | 99.9 | 99.9  | 99.9 | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   |       |
| R2-005-V   | R2-005-V-Z1  | 05/19/10     | 0-1         | 98.7              | 99.3      | 99.4 | 99.6  | 99.6 | 99.8  | 100  | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   |       |
| R2-005-V   | R2-005-V-Z2  | 05/19/10     | 1-2         | 99.2              | 99.3      | 99.3 | 99.5  | 99.6 | 99.7  | 99.9 | 100   | 100  | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100 | 100   | 100     | 100  | 100   | 100   |       |

Reach 2

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach | Location   | Sample ID | Sample Date  | Sample Depth (ft) | % Passing     |      |               |      |              |      |              |      |              |      |              |     |              |     |             |     |                        |     |                         |     |                         |     |                         |     |                         |     |                         |     |     |
|-------|------------|-----------|--------------|-------------------|---------------|------|---------------|------|--------------|------|--------------|------|--------------|------|--------------|-----|--------------|-----|-------------|-----|------------------------|-----|-------------------------|-----|-------------------------|-----|-------------------------|-----|-------------------------|-----|-------------------------|-----|-----|
|       |            |           |              |                   | Sieve No. 200 |      | Sieve No. 100 |      | Sieve No. 80 |      | Sieve No. 60 |      | Sieve No. 40 |      | Sieve No. 20 |     | Sieve No. 10 |     | Sieve No. 4 |     | Sieve No. microns 9500 |     | Sieve No. microns 19000 |     | Sieve No. microns 25000 |     | Sieve No. microns 37500 |     | Sieve No. microns 50000 |     | Sieve No. microns 75000 |     |     |
|       |            |           |              |                   |               |      |               |      |              |      |              |      |              |      |              |     |              |     |             |     |                        |     |                         |     |                         |     |                         |     |                         |     |                         |     |     |
|       | R2-005-V   |           | R2-005-V-Z3  | 05/19/10          | 2-3           | 97.9 | 98.8          | 98.8 | 99           | 99.3 | 99.6         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     |     |     |
|       | R2-005-V   |           | R2-005-V-Z4  | 05/19/10          | 3-4           | 97.2 | 98.5          | 98.7 | 99           | 99.2 | 99.7         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-005-V   |           | R2-005-V-Z5  | 05/19/10          | 4-6           | 97.3 | 98.4          | 98.5 | 98.8         | 99.2 | 99.7         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-005-V   |           | R2-005-V-Z6  | 05/19/10          | 6-7           | 98.8 | 99.1          | 99.1 | 99.3         | 99.4 | 99.5         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V-P |           | R2-006-V-Z1P | 05/19/10          | 0-1           | 97.7 | 98.7          | 98.7 | 98.9         | 99.1 | 99.4         | 99.4 | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V   |           | R2-006-V-Z1  | 05/19/10          | 0-1           | 94.1 | 97.6          | 98   | 98.5         | 99   | 99.4         | 99.6 | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V   |           | R2-006-V-Z2  | 05/19/10          | 1-2           | 98   | 98.9          | 99   | 99.2         | 99.4 | 99.7         | 99.9 | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V   |           | R2-006-V-Z3  | 05/19/10          | 2-3           | 94.4 | 97.2          | 97.5 | 98           | 98.7 | 99.4         | 99.6 | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V   |           | R2-006-V-R   | 05/19/10          | 2-3           | 91.8 | 95.1          | 95.7 | 96.6         | 97.9 | 99.2         | 99.6 | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V   |           | R2-006-V-Z4  | 05/19/10          | 3-4           | 99.3 | 99.5          | 99.5 | 99.6         | 99.6 | 99.9         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 |     |
|       | R2-006-V   |           | R2-006-V-Z5a | 05/19/10          | 4-5           | 99.3 | 99.6          | 99.6 | 99.7         | 99.7 | 99.9         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-006-V   |           | R2-006-V-Z5b | 05/19/10          | 5-6           | 96.8 | 98.6          | 98.8 | 99.4         | 99.6 | 99.9         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z1  | 05/19/10          | 0-1           | 99.7 | 99.8          | 99.8 | 99.8         | 99.8 | 100          | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z1P | 05/19/10          | 0-1           | 99.9 | 100           | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z2  | 05/19/10          | 1-2           | 100  | 100           | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z3  | 05/19/10          | 2-3           | 99.8 | 99.9          | 99.9 | 99.9         | 99.9 | 99.9         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z4  | 05/19/10          | 3-4           | 99.9 | 100           | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z5a | 05/19/10          | 4-5           | 64.9 | 68.7          | 69.3 | 71.5         | 74   | 78.6         | 85.6 | 89.2         | 93.9 | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-007-V   |           | R2-007-V-Z5b | 05/19/10          | 5-6           | 80   | 88.2          | 89.2 | 92.8         | 95.8 | 97.8         | 98.9 | 99.6         | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-008-V   |           | R2-008-V-Z1  | 05/19/10          | 0-1           | 99.7 | 99.9          | 99.9 | 99.9         | 99.9 | 99.9         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-008-V   |           | R2-008-V-Z1P | 05/19/10          | 0-1           | 99.6 | 99.7          | 99.7 | 99.7         | 99.7 | 99.7         | 99.7 | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-008-V   |           | R2-008-V-Z2  | 05/19/10          | 1-2           | 98.9 | 99.2          | 99.3 | 99.4         | 99.6 | 99.8         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-008-V   |           | R2-008-V-Z3  | 05/19/10          | 2-3           | 98.9 | 99.2          | 99.2 | 99.3         | 99.3 | 99.5         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-008-V   |           | R2-008-V-Z4  | 05/19/10          | 3-4           | 99.1 | 99.3          | 99.3 | 99.4         | 99.5 | 99.7         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-008-V   |           | R2-008-V-Z5  | 05/19/10          | 4.5-5         | 66.4 | 72.2          | 73.5 | 76           | 80.1 | 85.4         | 94.4 | 96.7         | 98.7 | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-009-V   |           | R2-009-V-Z1  | 05/19/10          | 0-1           | 99.2 | 99.4          | 99.4 | 99.5         | 99.6 | 99.8         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100                     | 100 | 100 |
|       | R2-009-V   |           | R2-009-V-Z1P | 05/19/10          | 0-1           | 98.8 | 99.2          | 99.2 | 99.4         | 99.6 | 99.8         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100         | 100 | 100                    | 100 | 100                     |     |                         |     |                         |     |                         |     |                         |     |     |

Reach 2

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach    | Location     | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |       |               |       |              |       |              |       |              |       |              |       |              |       |             |       |             |       |             |       |
|----------|--------------|-----------|-------------|-------------------|---------------|-------|---------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|-------------|-------|-------------|-------|-------------|-------|
|          |              |           |             |                   | Sieve No. 200 |       | Sieve No. 100 |       | Sieve No. 80 |       | Sieve No. 60 |       | Sieve No. 40 |       | Sieve No. 20 |       | Sieve No. 10 |       | Sieve No. 4 |       | Sieve No. 2 |       | Sieve No. 1 |       |
|          |              |           |             |                   | No.           | Sieve | No.           | Sieve | No.          | Sieve | No.          | Sieve | No.          | Sieve | No.          | Sieve | No.          | Sieve | No.         | Sieve | No.         | Sieve | No.         | Sieve |
| R2-009-V | R2-009-V-Z5  |           | 05/19/10    | 4-5.5             | 65.4          | 72.8  | 74.8          | 79.7  | 87.1         | 92.7  | 96.1         | 98.6  | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z1  |           | 05/25/10    | 0-1               | 98.9          | 99.5  | 99.6          | 99.7  | 99.8         | 99.9  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z2  |           | 05/25/10    | 1-2               | 98.5          | 99.4  | 99.5          | 99.7  | 99.8         | 99.9  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z3  |           | 05/25/10    | 2-3               | 99.1          | 99.4  | 99.5          | 99.6  | 99.7         | 99.8  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z4  |           | 05/25/10    | 3-4               | 98            | 98.3  | 98.4          | 98.5  | 98.6         | 98.9  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z5  |           | 05/25/10    | 4-6               | 98.5          | 99    | 99.1          | 99.2  | 99.3         | 99.5  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z6  |           | 05/25/10    | 6-8               | 97.9          | 99.2  | 99.3          | 99.5  | 99.7         | 99.9  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-R   |           | 05/25/10    | 6-8               | 97.5          | 98.7  | 98.8          | 99.1  | 99.5         | 99.8  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z7a |           | 05/25/10    | 8-9               | 90            | 96.1  | 97.1          | 98.4  | 99.4         | 99.8  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-010-V | R2-010-V-Z7b |           | 05/25/10    | 9-10              | 84.6          | 91.8  | 93.2          | 95.8  | 98           | 99.1  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z1  |           | 05/25/10    | 0-1               | 94.9          | 97.7  | 98            | 98.6  | 99.2         | 99.7  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z2  |           | 05/25/10    | 1-2               | 97.8          | 98.9  | 98.9          | 99.1  | 99.3         | 99.5  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z3  |           | 05/25/10    | 2-3               | 97.2          | 99    | 99.1          | 99.3  | 99.5         | 99.7  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z4  |           | 05/25/10    | 3-4               | 98.6          | 99.1  | 99.2          | 99.2  | 99.4         | 99.6  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z5  |           | 05/25/10    | 4-6               | 97.5          | 98.1  | 98.2          | 98.4  | 98.6         | 99.1  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z6  |           | 05/25/10    | 6-8               | 98            | 98.7  | 98.8          | 98.9  | 98.9         | 99.1  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z7  |           | 05/25/10    | 8-10              | 96.3          | 98.6  | 98.8          | 99    | 99.3         | 99.6  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-011-V | R2-011-V-Z8  |           | 05/25/10    | 10-11.5           | 99            | 99.6  | 99.6          | 99.7  | 99.7         | 99.7  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z1  |           | 05/25/10    | 0-1               | 97.4          | 99    | 99.2          | 99.4  | 99.7         | 99.8  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z2  |           | 05/25/10    | 1-2               | 98.8          | 99.6  | 99.6          | 99.7  | 99.8         | 99.8  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z3  |           | 05/25/10    | 2-3               | 94.2          | 96.9  | 97.2          | 97.8  | 98.7         | 99.3  | 99.5         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z4  |           | 05/25/10    | 3-4               | 96.8          | 97.8  | 98            | 98.4  | 99           | 99.5  | 99.8         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-R   |           | 05/25/10    | 3-4               | 98.7          | 99.2  | 99.2          | 99.3  | 99.6         | 99.9  | 100          | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z5  |           | 05/25/10    | 4-6               | 92.6          | 93.9  | 94.2          | 94.7  | 95.4         | 96.4  | 98.8         | 99.4  | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z6  |           | 05/25/10    | 6-8               | 76.9          | 80.2  | 80.9          | 82.4  | 85.4         | 89    | 90.7         | 93.3  | 93.7         | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-012-V | R2-012-V-Z7  |           | 05/25/10    | 8-9               | 41.6          | 45.4  | 46.3          | 48.1  | 52.1         | 61.1  | 76.3         | 83    | 91.5         | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-013-V | R2-013-V-Z1  |           | 05/25/10    | 0-1               | 91.9          | 95.5  | 95.9          | 96.8  | 97.8         | 98.7  | 99.4         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-013-V | R2-013-V-Z2  |           | 05/25/10    | 1-2               | 93            | 96.3  | 96.7          | 97.3  | 98           | 98.4  | 99.2         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-013-V | R2-013-V-Z3  |           | 05/25/10    | 2-3               | 92            | 94.8  | 95.3          | 96.1  | 97.4         | 98.9  | 99.7         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-013-V | R2-013-V-Z4  |           | 05/25/10    | 3-4               | 94.8          | 97.4  | 97.6          | 98.1  | 98.6         | 99.1  | 99.8         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |
| R2-013-V | R2-013-V-Z5  |           | 05/25/10    | 4-6               | 91.5          | 92.9  | 93.2          | 93.7  | 94.6         | 95.7  | 98.5         | 100   | 100          | 100   | 100          | 100   | 100          | 100   | 100         | 100   | 100         | 100   |             |       |

Reach 2

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach    | Location    | Sample ID    | Sample Date | Sample Depth (ft) | % Passing     |      |               |      |              |      |              |      |              |     |              |     |              |     |               |     |                |     |                 |     |                 |     |                 |     |                 |     |                 |     |     |     |
|----------|-------------|--------------|-------------|-------------------|---------------|------|---------------|------|--------------|------|--------------|------|--------------|-----|--------------|-----|--------------|-----|---------------|-----|----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----|-----|
|          |             |              |             |                   | Sieve No. 200 |      | Sieve No. 100 |      | Sieve No. 80 |      | Sieve No. 60 |      | Sieve No. 40 |     | Sieve No. 20 |     | Sieve No. 10 |     | No. microns 4 |     | Sieve No. 9500 |     | Sieve No. 19000 |     | Sieve No. 25000 |     | Sieve No. 37500 |     | Sieve No. 50000 |     | Sieve No. 75000 |     |     |     |
|          |             |              |             |                   |               |      |               |      |              |      |              |      |              |     |              |     |              |     |               |     |                |     |                 |     |                 |     |                 |     |                 |     |                 |     |     |     |
| Reach 2  | R2-013-V    | R2-013-V-Z6  | 05/25/10    | 6-8               | 89.3          | 91.1 | 91.5          | 92.5 | 94.2         | 96.9 | 99.3         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             |     |     |     |
|          | R2-013-V    | R2-013-V-Z7  | 05/25/10    | 8-10              | 88.9          | 91.4 | 91.9          | 92.9 | 95.1         | 97.7 | 99.2         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-013-V    | R2-013-V-Z8  | 05/25/10    | 10-12             | 87.4          | 90.6 | 91            | 92   | 94.3         | 98.1 | 99.9         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z1  | 05/25/10    | 0-1               | 72.8          | 86.2 | 87.9          | 90.7 | 94.8         | 98.2 | 98.9         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z2  | 05/25/10    | 1-2               | 75.4          | 89.5 | 91.2          | 93.7 | 96.9         | 99.5 | 99.6         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z3  | 05/25/10    | 2-3               | 88.4          | 94.2 | 94.8          | 96   | 97.7         | 99.1 | 99.4         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z4  | 05/25/10    | 3-4               | 92.1          | 94.2 | 94.6          | 95.5 | 97.1         | 98.7 | 99           | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z5  | 05/25/10    | 4-6               | 89.3          | 92.1 | 92.8          | 94   | 96.3         | 98.6 | 99           | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-R   | 05/25/10    | 4-6               | 88.2          | 90   | 90.4          | 91.4 | 93.6         | 98.4 | 99.6         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z6  | 05/25/10    | 6-8               | 89.9          | 91.8 | 92.3          | 93.5 | 96.1         | 99.6 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 |     |     |
|          | R2-014-V    | R2-014-V-Z7  | 05/25/10    | 8-10              | 94.9          | 96.8 | 97            | 97.5 | 98.3         | 99.3 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z1  | 05/25/10    | 0-1               | 89.8          | 95.2 | 95.8          | 96.7 | 98           | 99   | 99.7         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z2  | 05/25/10    | 1-2               | 85.5          | 95.4 | 96.4          | 97.3 | 98.2         | 98.8 | 99.7         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z3  | 05/25/10    | 2-3               | 91.8          | 94   | 94.3          | 95   | 95.9         | 97   | 98.4         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z4  | 05/25/10    | 3-4               | 90.8          | 92.4 | 92.7          | 93.3 | 94.5         | 96.3 | 99.6         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z5  | 05/25/10    | 4-6               | 89.5          | 90.9 | 91.2          | 91.9 | 93.4         | 95.7 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z6  | 05/25/10    | 6-8               | 92.9          | 94.7 | 95            | 95.4 | 96.3         | 97.8 | 99.5         | 99.6 | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z7a | 05/25/10    | 8-9               | 91.3          | 96.2 | 97            | 98.4 | 99.6         | 99.9 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R2-015-V    | R2-015-V-Z7b | 05/25/10    | 9-9.5             | 93            | 98   | 98.5          | 99.3 | 99.8         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
| Reach 3  | R3-016-V    | R3-016-V-R   | 05/26/10    | 3-4               | 92.4          | 96.4 | 96.6          | 97.6 | 98.4         | 99.7 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R3-016-V    | R3-016-V-Z1  | 05/26/10    | 0-1               | 65.3          | 84.5 | 87.5          | 93.5 | 95.5         | 97   | 97.2         | 99.2 | 99.2         | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R3-016-V    | R3-016-V-Z2  | 05/26/10    | 1-2               | 88.7          | 93.9 | 94.4          | 95.9 | 97.1         | 99.3 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |
|          | R3-016-V    | R3-016-V-Z3  | 05/26/10    | 2-3               | 93.3          | 96.8 | 97            | 98.1 | 98.6         | 99.8 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-016-V    | R3-016-V-Z4  | 05/26/10    | 3-4               | 93.3          | 97.4 | 97.7          | 98.7 | 99.2         | 100  | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-016-V    | R3-016-V-R   | 05/26/10    | 3-4               | 92.4          | 96.4 | 96.6          | 97.6 | 98.4         | 99.7 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-016-V    | R3-016-V-Z5  | 05/26/10    | 4-6               | 94.4          | 96.1 | 96.3          | 97.2 | 97.9         | 99.2 | 99.8         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-016-V    | R3-016-V-Z6  | 05/26/10    | 6-8               | 91.8          | 95.1 | 95.4          | 96.6 | 97.7         | 99.5 | 99.8         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-016-V    | R3-016-V-Z7  | 05/26/10    | 8-9               | 92            | 97.5 | 98            | 99   | 99.5         | 99.9 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-017-V    | R3-017-V-Z1  | 05/26/10    | 0-1               | 59.7          | 64   | 65.1          | 70.7 | 78.4         | 89.5 | 95.9         | 98.3 | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
|          | R3-017-V    | R3-017-V-Z2  | 05/26/10    | 1-2               | 41.8          | 48.3 | 50.7          | 63.7 | 78           | 87.1 | 91.5         | 96.2 | 99.1         | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 | 100 |
| R3-017-V | R3-017-V-Z3 | 05/26/10     | 2-3         | 46.1              | 55.8          | 59.5 | 71.1          | 75.8 | 79.4         | 81   | 84.9         | 90.1 | 100          | 100 | 100          | 100 | 100          | 100 | 100           | 100 | 100            | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100             | 100 | 100 |     |

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Table Page 4 of 12 Pages



Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach    | Location    | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |      |               |      |              |    |              |     |              |     |              |     |              |     |             |     |             |     |               |     |               |     |                |      |               |     |                 |       |               |     |                |      |                |      |                 |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----------|-------------|-----------|-------------|-------------------|---------------|------|---------------|------|--------------|----|--------------|-----|--------------|-----|--------------|-----|--------------|-----|-------------|-----|-------------|-----|---------------|-----|---------------|-----|----------------|------|---------------|-----|-----------------|-------|---------------|-----|----------------|------|----------------|------|-----------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--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|          |             |           |             |                   | Sieve No. 200 |      | Sieve No. 100 |      | Sieve No. 80 |    | Sieve No. 60 |     | Sieve No. 40 |     | Sieve No. 20 |     | Sieve No. 10 |     | Sieve No. 4 |     | Sieve No. 2 |     | Sieve No. 1.5 |     | Sieve No. 1.0 |     | Sieve No. 0.75 |      | Sieve No. 0.6 |     | Sieve No. 0.425 |       | Sieve No. 0.3 |     | Sieve No. 0.25 |      | Sieve No. 0.15 |      | Sieve No. 0.075 |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     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 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|          |             |           |             |                   | No.           | 200  | No.           | 100  | No.          | 80 | No.          | 60  | No.          | 40  | No.          | 20  | No.          | 10  | No.         | 4   | No.         | 2   | No.           | 1.5 | No.           | 1.0 | No.            | 0.75 | No.           | 0.6 | No.             | 0.425 | No.           | 0.3 | No.            | 0.25 | No.            | 0.15 | No.             | 0.075 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| R3-017-V | R3-017-V-Z4 |           | 05/26/10    | 3-4               | 94.6          | 96.2 | 96.5          | 97.2 | 98.1         | 99 | 99.8         | 100 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 | 100         | 100 | 100           | 100 | 100           | 100 | 100            | 100  | 100           | 100 | 100             | 100   | 100           | 100 | 100            | 100  | 100            | 100  | 100             | 100   | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Table 4-12b  
Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach | Location | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |  |               |  |              |  |              |  |              |  |              |  |              |  |             |  |              |  |               |  |               |  |               |  |               |  |               |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |      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 |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |      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|       |          |           |             |                   | Sieve No. 200 |  | Sieve No. 100 |  | Sieve No. 80 |  | Sieve No. 60 |  | Sieve No. 40 |  | Sieve No. 20 |  | Sieve No. 10 |  | Sieve No. 4 |  | microns 9500 |  | microns 19000 |  | microns 25000 |  | microns 37500 |  | microns 50000 |  | microns 75000 |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |
|       |          |           |             |                   | No.           |  | No.           |  | No.          |  | No.          |  | No.          |  | No.          |  | No.          |  | No.         |  | No.          |  | Sieve         |  | Sieve         |  | Sieve         |  | Sieve         |  | Sieve         |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach | Location | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |       |         |       |         |               |         |       |         |       |              |       |         |       |         |              |         |       |         |       |              |       |         |       |         |              |         |       |         |       |              |       |         |       |         |             |         |       |         |       |             |       |         |       |         |             |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |  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|       |          |           |             |                   | Sieve No. 200 |       |         |       |         | Sieve No. 100 |         |       |         |       | Sieve No. 80 |       |         |       |         | Sieve No. 60 |         |       |         |       | Sieve No. 40 |       |         |       |         | Sieve No. 20 |         |       |         |       | Sieve No. 10 |       |         |       |         | Sieve No. 4 |         |       |         |       | Sieve No. 2 |       |         |       |         | Sieve No. 1 |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |  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|       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |  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   |       |         |       |         |       |         |       |         |       |         |       |         |       |         |       |
|       |          |           |             |                   | microns       | Sieve | microns | Sieve | microns | Sieve         | microns | Sieve | microns | Sieve | microns      | Sieve | microns | Sieve | microns | Sieve        | microns | Sieve | microns | Sieve | microns      | Sieve | microns | Sieve | microns | Sieve        | microns | Sieve | microns | Sieve | microns      | Sieve | microns | Sieve | microns | Sieve       | microns | Sieve | microns | Sieve | microns     | Sieve | microns | Sieve | microns | Sieve       | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve | microns | Sieve |

Reach 5

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach | Location | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |  |               |  |              |  |              |  |              |  |              |  |              |  |       |  |              |  |               |  |               |  |               |  |               |  |               |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|-------|----------|-----------|-------------|-------------------|---------------|--|---------------|--|--------------|--|--------------|--|--------------|--|--------------|--|--------------|--|-------|--|--------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------|--|-------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|       |          |           |             |                   | Sieve No. 200 |  | Sieve No. 100 |  | Sieve No. 80 |  | Sieve No. 60 |  | Sieve No. 40 |  | Sieve No. 20 |  | Sieve No. 10 |  | No. 4 |  | microns 9500 |  | microns 19000 |  | microns 25000 |  | microns 37500 |  | microns 50000 |  | microns 75000 |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |       |  |
|       |          |           |             |                   | No.           |  | No.           |  | No.          |  | No.          |  | No.          |  | No.          |  | No.          |  | No.   |  | No.          |  | Sieve         |  | Sieve         |  | Sieve         |  | Sieve         |  | Sieve         |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  | Sieve |  |

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach    | Location      | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |      |               |      |              |      |              |      |              |     |              |     |              |     |             |     |
|----------|---------------|-----------|-------------|-------------------|---------------|------|---------------|------|--------------|------|--------------|------|--------------|-----|--------------|-----|--------------|-----|-------------|-----|
|          |               |           |             |                   | Sieve No. 200 |      | Sieve No. 100 |      | Sieve No. 80 |      | Sieve No. 60 |      | Sieve No. 40 |     | Sieve No. 20 |     | Sieve No. 10 |     | Sieve No. 4 |     |
|          |               |           |             |                   | Sieve No.     | 200  | Sieve No.     | 100  | Sieve No.    | 80   | Sieve No.    | 60   | Sieve No.    | 40  | Sieve No.    | 20  | Sieve No.    | 10  | Sieve No.   | 4   |
| R6-146-C | R6-146-C-Z1a  |           | 07/02/10    | 0-0.5             | 85.3          | 89.4 | 90.3          | 92.9 | 97.2         | 97.2 | 99.2         | 99.3 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-146-C | R6-146-C-Comp |           | 07/02/10    | 0-1.1             | 70            | 74.5 | 75.5          | 77.7 | 82           | 87.2 | 89.6         | 93.8 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-147-C | R6-147-C-Z1a  |           | 07/01/10    | 0-0.5             | 87.3          | 92.9 | 93.8          | 95.3 | 97.3         | 98.9 | 99.3         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-147-C | R6-147-C-Comp |           | 07/01/10    | 0-0.8             | 76.7          | 85.2 | 86.8          | 89.7 | 93.1         | 95.9 | 97.1         | 98.1 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-148-C | R6-148-C-Comp |           | 07/01/10    | 0-0.9             | 55.8          | 75.6 | 77.7          | 80.4 | 82.2         | 84.7 | 88.6         | 92.8 | 94.7         | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-148-C | R6-148-CR     |           | 07/01/10    | 0-0.9             | 72            | 85.4 | 87.1          | 89.1 | 90.6         | 92.4 | 95.3         | 97.7 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-149-C | R6-149-C-Comp |           | 07/01/10    | 0-0.9             | 23.7          | 28.9 | 30.9          | 35.7 | 45.1         | 62   | 78.7         | 86.6 | 95.5         | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-150-C | R6-150-C-Comp |           | 07/01/10    | 0-0.9             | 66.7          | 75.7 | 77.9          | 82.9 | 90.4         | 94.4 | 97.6         | 98.6 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-151-C | R6-151-C-Comp |           | 07/02/10    | 0-0.7             | 94            | 97.9 | 98            | 98.2 | 98.6         | 98.9 | 98.9         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-152-C | R6-152-C-Comp |           | 07/02/10    | 0-0.7             | 79            | 89   | 90.4          | 92.3 | 93.7         | 94.7 | 95.1         | 96   | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-152-C | R6-152-CR     |           | 07/02/10    | 0-0.7             | 82.3          | 91.5 | 92.7          | 94.3 | 95.5         | 96.4 | 96.6         | 97.5 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-153-C | R6-153-C-Comp |           | 07/02/10    | 0-0.5             | 86            | 90.7 | 91.5          | 93.1 | 95.9         | 97.5 | 98           | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-154-C | R6-154-C-Comp |           | 07/01/10    | 0-1.1             | 61.9          | 68.8 | 70.2          | 73   | 76.6         | 79.8 | 83.7         | 89   | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-154-C | R6-154-C-Z1a  |           | 07/01/10    | 0-0.5             | 75.4          | 85.5 | 87.1          | 90   | 93.4         | 96.1 | 98           | 99   | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-155-C | R6-155-C-Comp |           | 07/01/10    | 0-0.7             | 88.9          | 94.4 | 95.3          | 96.8 | 98.3         | 99.2 | 99.7         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-156-C | R6-156-C-Comp |           | 07/01/10    | 0-0.7             | 45.4          | 62.6 | 68.5          | 80.7 | 92           | 95.2 | 96.6         | 98.2 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-157-C | R6-157-C-Z1a  |           | 07/01/10    | 0-0.5             | 60.7          | 78.2 | 82.9          | 91.5 | 97.7         | 99   | 99.2         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-157-C | R6-157-C-Comp |           | 07/01/10    | 0-1.2             | 79.4          | 88.7 | 90.7          | 94.3 | 97.4         | 98.9 | 99.5         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-158-C | R6-158-C-Z1a  |           | 07/01/10    | 0-0.5             | 47.7          | 66.6 | 72.3          | 85   | 97.3         | 98.8 | 98.9         | 99.2 | 99.9         | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-158-C | R6-158-CR     |           | 07/01/10    | 0-0.5             | 49.4          | 65.6 | 71            | 83.9 | 97.4         | 99.3 | 99.5         | 99.8 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-158-C | R6-158-C-Comp |           | 07/01/10    | 0-1.4             | 74.4          | 84.6 | 87.4          | 93.1 | 98.2         | 99.3 | 99.5         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-159-C | R6-159-C-Z1a  |           | 07/01/10    | 0-0.5             | 82            | 93   | 94.6          | 97.1 | 98.7         | 99.3 | 99.5         | 99.6 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-159-C | R6-159-C-Comp |           | 07/01/10    | 0-1.3             | 73.8          | 87.9 | 90.8          | 95.5 | 98.4         | 99.4 | 99.6         | 99.8 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-160-C | R6-160-C-Z1a  |           | 07/01/10    | 0-0.5             | 92.6          | 96.3 | 96.8          | 97.6 | 98.7         | 99.3 | 99.4         | 99.7 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-160-C | R6-160-C-Comp |           | 07/01/10    | 0-1.7             | 92.8          | 96.1 | 96.7          | 97.6 | 98.8         | 99.7 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-161-C | R6-161-C-Z1a  |           | 07/01/10    | 0-0.5             | 65.1          | 73.1 | 75.3          | 81.8 | 94.4         | 97.4 | 98.1         | 98.9 | 99.3         | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-161-C | R6-161-C-Z1   |           | 07/01/10    | 0.5-1.5           | 57.5          | 63.4 | 65.3          | 70.6 | 81.4         | 86   | 88.3         | 95.1 | 99           | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-162-C | R6-162-C-Comp |           | 06/30/10    | 0-0.8             | 80            | 92.7 | 94.2          | 95.7 | 96.8         | 97.6 | 98           | 98.5 | 99.3         | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-163-C | R6-163-C-Z1a  |           | 06/30/10    | 0-0.5             | 70.6          | 89.6 | 90.8          | 93.5 | 97.8         | 99.2 | 100          | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-163-C | R6-163-C-Z1   |           | 06/30/10    | 0.5-1.4           | 76.5          | 91.9 | 93.3          | 95.9 | 98.4         | 99.1 | 99.4         | 99.8 | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |
| R6-164-C | R6-164-C-Z1a  |           | 06/30/10    | 0-0.5             | 77.5          | 96.7 | 97.8          | 98.9 | 99.4         | 99.7 | 99.9         | 100  | 100          | 100 | 100          | 100 | 100          | 100 | 100         | 100 |

Reach 6

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach    | Location      | Sample ID     | Sample Date | Sample Depth (ft) | % Passing     |      |               |      |              |      |              |      |              |      |              |      |              |      |               |      |                        |      |                         |      |                         |      |                         |      |                         |      |                         |  |
|----------|---------------|---------------|-------------|-------------------|---------------|------|---------------|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|---------------|------|------------------------|------|-------------------------|------|-------------------------|------|-------------------------|------|-------------------------|------|-------------------------|--|
|          |               |               |             |                   | Sieve No. 200 |      | Sieve No. 100 |      | Sieve No. 80 |      | Sieve No. 60 |      | Sieve No. 40 |      | Sieve No. 20 |      | Sieve No. 10 |      | No. microns 4 |      | Sieve No. microns 9500 |      | Sieve No. microns 19000 |      | Sieve No. microns 25000 |      | Sieve No. microns 37500 |      | Sieve No. microns 50000 |      | Sieve No. microns 75000 |  |
|          |               |               |             |                   |               |      |               |      |              |      |              |      |              |      |              |      |              |      |               |      |                        |      |                         |      |                         |      |                         |      |                         |      |                         |  |
| Reach 6  | R6-164-C      | R6-164-C-Comp | 06/30/10    | 0-1.4             | 87.2          | 95.8 | 96.7          | 97.8 | 98.6         | 99   | 99.2         | 99.7 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-165-C      | R6-165-C-Z1a  | 06/30/10    | 0-0.5             | 90.5          | 96.3 | 97            | 97.7 | 98.3         | 98.6 | 98.6         | 99.2 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-165-C      | R6-165-C-Comp | 06/30/10    | 0-1.6             | 84.7          | 90.1 | 91            | 92.4 | 94.1         | 95.3 | 95.7         | 97.6 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-166-C      | R6-166-C-Z1a  | 06/30/10    | 0-0.5             | 83.3          | 91.3 | 92.3          | 93.5 | 94.6         | 95.2 | 95.3         | 95.7 | 96.7         | 96.7 | 96.7         | 96.7 | 96.7         | 96.7 | 96.7          | 96.7 | 96.7                   | 96.7 | 96.7                    | 96.7 | 96.7                    | 96.7 | 96.7                    | 96.7 | 96.7                    | 96.7 |                         |  |
|          | R6-166-C      | R6-166-C-Comp | 06/30/10    | 0-2.1             | 85.4          | 91.5 | 92.8          | 94.8 | 96.6         | 97.8 | 98.4         | 99.2 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-167-C      | R6-167-C-Z1a  | 06/30/10    | 0-0.5             | 95.5          | 97.8 | 98.1          | 98.6 | 99.6         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-167-C      | R6-167-C-Comp | 06/30/10    | 0-1.3             | 85.7          | 90.6 | 91.7          | 93.7 | 96.8         | 98.2 | 98.4         | 99.1 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-168-C      | R6-168-C-Z1a  | 06/30/10    | 0-0.5             | 88.6          | 96.9 | 97.3          | 98.2 | 98.6         | 99   | 99.4         | 99.7 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-168-C      | R6-168-C-Comp | 06/30/10    | 0-1.3             | 69.7          | 94   | 95            | 96.2 | 97.1         | 97.7 | 97.9         | 98.2 | 98.3         | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-169-C      | R6-169-C-Z1a  | 06/28/10    | 0-0.5             | 69.8          | 76.9 | 78.1          | 80.6 | 84.9         | 91.8 | 97.7         | 99.4 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-169-C      | R6-169-C-Comp | 06/28/10    | 0-1.4             | 76.8          | 83.3 | 84.8          | 88.2 | 92.6         | 97.2 | 99           | 99.7 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-170-C      | R6-170-C-Z1a  | 06/25/10    | 0-0.5             | 77.8          | 85.6 | 87            | 89.4 | 92.5         | 95.6 | 97.6         | 98.6 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-170-C      | R6-170-C-Comp | 06/25/10    | 0-1.5             | 79.5          | 86   | 87.2          | 89.4 | 92.5         | 96   | 98.3         | 98.9 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-171-C      | R6-171-C-Z1a  | 06/25/10    | 0-0.5             | 69.8          | 80.3 | 82            | 85   | 88.3         | 91.8 | 98.4         | 99.4 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R6-171-C      | R6-171-C-Comp | 06/25/10    | 0-1.2             | 81.1          | 89.5 | 91            | 93.3 | 95.5         | 97.2 | 99.2         | 99.8 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R7-172-C      | R7-172-C-Z1a  | 06/25/10    | 0-0.5             | 30            | 40.8 | 46.9          | 62.4 | 83.2         | 89.3 | 92.2         | 97.4 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R7-172-C      | R7-172-C-Comp | 06/25/10    | 0-0.9             | 35            | 44.6 | 48.6          | 60.3 | 82.2         | 88.9 | 92           | 97.2 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
|          | R7-173-C      | R7-173-C-Z1a  | 06/25/10    | 0-0.5             | 77.5          | 87.9 | 89.5          | 92.7 | 96.6         | 99.2 | 99.5         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  |                         |  |
| R7-173-C | R7-173-C-Comp | 06/25/10      | 0-1.1       | 77                | 87.3          | 88.9 | 91.8          | 95.4 | 98.2         | 98.5 | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-174-C | R7-174-C-Z1a  | 06/25/10      | 0-0.5       | 79.3              | 88.1          | 89.2 | 91            | 93.2 | 94.7         | 95.5 | 97.8         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-174-C | R7-174-C-Comp | 06/25/10      | 0-1.2       | 71.7              | 81.3          | 82.9 | 85.7          | 89   | 91.7         | 95   | 97.5         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-175-C | R7-175-C-Z1a  | 06/24/10      | 0-0.5       | 80.3              | 89.8          | 91   | 92.8          | 94.8 | 96.2         | 97.1 | 97.8         | 98.9 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-175-C | R7-175-C-Z1   | 06/24/10      | 0.5-1.4     | 84.5              | 92.9          | 93.8 | 95.3          | 96.6 | 97.2         | 97.4 | 98           | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-176-C | R7-176-C-Z1a  | 06/24/10      | 0-0.5       | 44.8              | 68.2          | 73.2 | 82.2          | 90.3 | 94           | 94.8 | 99.4         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-176-C | R7-176-C-Comp | 06/24/10      | 0-0.9       | 31.3              | 46            | 49.7 | 58            | 69.8 | 80.3         | 82.1 | 91.5         | 96.3 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-177-C | R7-177-C-Z1a  | 06/24/10      | 0-0.5       | 75.1              | 85.3          | 86.7 | 88.9          | 92   | 94.7         | 97.3 | 98.2         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-177-C | R7-177-C-Z1   | 06/24/10      | 0.5-1.1     | 71.7              | 84.7          | 86.8 | 90.6          | 94.4 | 97.3         | 99.1 | 99.9         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-177-C | R7-177-CR     | 06/24/10      | 0.5-1.1     | 72.8              | 84.5          | 86.5 | 89.6          | 92.6 | 94.5         | 95   | 96.7         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-178-C | R7-178-C-Z1a  | 06/24/10      | 0-0.5       | 52.2              | 62.3          | 65.4 | 71.4          | 76.6 | 80.6         | 82.9 | 89.4         | 97.4 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |
| R7-178-C | R7-178-C-Z1   | 06/24/10      | 0.5-1.2     | 34.3              | 46            | 49.8 | 58.2          | 67.5 | 76           | 87   | 89.5         | 97.6 | 100          | 100  | 100          | 100  | 100          | 100  | 100           | 100  | 100                    | 100  | 100                     | 100  | 100                     | 100  | 100                     | 100  | 100                     |      |                         |  |

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach    | Location      | Sample ID | Sample Date | Sample Depth (ft) | % Passing     |      |               |      |              |      |              |      |              |      |              |      |              |      |             |      |               |         |               |      |               |       |               |         |       |
|----------|---------------|-----------|-------------|-------------------|---------------|------|---------------|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|------|-------------|------|---------------|---------|---------------|------|---------------|-------|---------------|---------|-------|
|          |               |           |             |                   | Sieve No. 200 |      | Sieve No. 100 |      | Sieve No. 80 |      | Sieve No. 60 |      | Sieve No. 40 |      | Sieve No. 20 |      | Sieve No. 10 |      | Sieve No. 4 |      | microns Sieve |         | microns Sieve |      | microns Sieve |       | microns Sieve |         |       |
|          |               |           |             |                   | No.           | 200  | No.           | 100  | No.          | 80   | No.          | 60   | No.          | 40   | No.          | 20   | No.          | 10   | No.         | 4    | No.           | microns | Sieve         | No.  | microns       | Sieve | No.           | microns | Sieve |
| R7-179-C | R7-179-C-Z1a  | 06/23/10  | 0-0.5       | 55.8              | 80.8          | 84.4 | 88.9          | 92.8 | 95.2         | 97.2 | 99.4         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-179-C | R7-179-C-Comp | 06/23/10  | 0-0.7       | 80.7              | 90.9          | 92.1 | 93.9          | 96.2 | 98           | 98.4 | 99.1         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-180-C | R7-180-C-Z1a  | 06/23/10  | 0-0.5       | 60.9              | 74.6          | 78.4 | 85.5          | 91.5 | 94.9         | 96.7 | 99.2         | 99.7 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-180-C | R7-180-C-Comp | 06/23/10  | 0-1.1       | 42.7              | 62            | 67.3 | 77.7          | 86.9 | 92.5         | 95.7 | 98.5         | 99.3 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-181-C | R7-181-C-Z1a  | 07/01/10  | 0-0.5       | 43.1              | 67.7          | 75.2 | 88            | 96.3 | 98.3         | 99.1 | 99.7         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-181-C | R7-181-C-Comp | 07/01/10  | 0-1.3       | 35.4              | 51.1          | 57.9 | 73.6          | 89.2 | 95.2         | 97.3 | 99.5         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-182-C | R7-182-C-Comp | 07/01/10  | 0-0.8       | 79.6              | 87.8          | 89.1 | 91.5          | 94.3 | 96           | 97.1 | 97.4         | 97.6 | 97.6         | 97.6 | 97.6         | 97.6 | 97.6         | 97.6 | 97.6        | 97.6 | 97.6          | 97.6    | 97.6          | 97.6 | 97.6          | 97.6  | 97.6          | 97.6    |       |
| R7-183-C | R7-183-C-Z1a  | 07/01/10  | 0-0.5       | 63.4              | 77            | 81.8 | 91.1          | 96.7 | 98.9         | 99.2 | 99.4         | 99.6 | 99.6         | 99.6 | 99.6         | 99.6 | 99.6         | 99.6 | 99.6        | 99.6 | 99.6          | 99.6    | 99.6          | 99.6 | 99.6          | 99.6  | 99.6          | 99.6    |       |
| R7-183-C | R7-183-C-Comp | 07/01/10  | 0-1.3       | 58.3              | 71.8          | 75.7 | 83.7          | 91.3 | 95.2         | 96.7 | 98.4         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-184-C | R7-184-C-Comp | 06/30/10  | 0-0.75      | 67.8              | 79.9          | 82.2 | 88.9          | 92.4 | 95.6         | 98.1 | 99.6         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-185-C | R7-185-C-Z1a  | 06/30/10  | 0-0.5       | 86.8              | 95.6          | 96.1 | 97.2          | 97.9 | 98.5         | 98.7 | 99.3         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-185-C | R7-185-C-Comp | 06/30/10  | 0-0.7       | 70.4              | 85.6          | 87.5 | 92.9          | 95.9 | 97.5         | 98   | 99.2         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-186-C | R7-186-C-Z1a  | 06/30/10  | 0-0.5       | 39                | 76.2          | 81.7 | 91.2          | 96.2 | 98.8         | 99.7 | 99.9         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-186-C | R7-186-C-Comp | 06/30/10  | 0-0.7       | 31.2              | 54.1          | 58.7 | 69.6          | 78.5 | 86.5         | 91.4 | 95.6         | 99.2 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-187-C | R7-187-C-Z1a  | 06/30/10  | 0-0.5       | 95.8              | 98.8          | 98.9 | 99.3          | 99.5 | 99.7         | 99.8 | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-187-C | R7-187-C-Comp | 06/30/10  | 0-0.95      | 71.1              | 81.4          | 83.1 | 88.4          | 92.7 | 95.9         | 96.6 | 97.9         | 98.9 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-188-C | R7-188-C-Z1a  | 06/30/10  | 0-0.5       | 89.7              | 98            | 98.5 | 99.5          | 99.8 | 99.9         | 99.9 | 100          | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-188-C | R7-188-C-Z1   | 06/30/10  | 0.4-1.1     | 41                | 53.5          | 58.8 | 78.4          | 93.7 | 97.4         | 98.2 | 98.8         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-189-C | R7-189-C-Z1a  | 06/30/10  | 0-0.5       | 58.2              | 63            | 64.4 | 68.1          | 75.6 | 88.9         | 98.8 | 99.4         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-189-C | R7-189-C-Comp | 06/30/10  | 0-1.2       | 68                | 86.9          | 89   | 93.3          | 96   | 98.3         | 99.5 | 99.7         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-189-C | R7-189-CR     | 06/30/10  | 0-1.2       | 68.8              | 88.2          | 90.2 | 94.3          | 96.4 | 98.2         | 99.2 | 99.4         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-190-C | R7-190-C-Comp | 06/30/10  | 0-0.7       | 47.4              | 72.2          | 77.1 | 84            | 89.9 | 94.2         | 98.4 | 99.3         | 100  | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-191-C | R7-191-C-Z1a  | 06/29/10  | 0-0.5       | 77.4              | 91.6          | 93.4 | 95.7          | 97.8 | 98.9         | 99.2 | 99.6         | 99.7 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-191-C | R7-191-C-Comp | 06/29/10  | 0-0.9       | 69.7              | 89.5          | 91.7 | 94.5          | 97.5 | 99           | 99.3 | 99.6         | 99.7 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-192-C | R7-192-C-Z1a  | 06/29/10  | 0-0.3       | 43.4              | 69.6          | 72.7 | 76.9          | 80.3 | 81.8         | 82.2 | 82.6         | 85.4 | 90.7         | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-193-C | R7-193-C-Z1a  | 06/29/10  | 0-0.5       | 53.7              | 76.9          | 81   | 87.1          | 93.3 | 96.9         | 98   | 98.8         | 99.3 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-193-C | R7-193-C-Comp | 06/29/10  | 0-0.8       | 55.1              | 72.3          | 76.4 | 83.5          | 90.8 | 95.6         | 98.1 | 99.1         | 99.4 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-194-C | R7-194-C-Comp | 06/29/10  | 0-0.6       | 21.8              | 32.1          | 35.2 | 42.9          | 56.3 | 69           | 81.4 | 92.4         | 98.5 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-195-C | R7-195-C-Comp | 06/29/10  | 0-0         | 22.8              | 44.1          | 49   | 57.3          | 68.3 | 78.4         | 86.1 | 91.2         | 95.6 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-196-C | R7-196-C-Z1a  | 06/29/10  | 0-0.5       | 61                | 77.2          | 79.3 | 82.4          | 87.1 | 92.8         | 96   | 97.7         | 98.6 | 99.7         | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |
| R7-196-C | R7-196-C-Comp | 06/29/10  | 0-1.3       | 57.4              | 87.2          | 90.4 | 94            | 96.9 | 98.4         | 98.9 | 99.5         | 99.8 | 100          | 100  | 100          | 100  | 100          | 100  | 100         | 100  | 100           | 100     | 100           | 100  | 100           | 100   | 100           | 100     | 100   |

Reach 7

Table 4-12b

Summary of Results of Particle Grain Size Analysis for the Samples Collected in 2010

| Reach   | Location | Sample ID     | Sample Date | Sample Depth (ft) | % Passing |           |           |           |           |           |           |           |             |           |           |           |           |           |           |           |
|---------|----------|---------------|-------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|         |          |               |             |                   | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No.   | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. | Sieve No. |
|         |          |               |             |                   | 200       | 100       | 80        | 60        | 40        | 20        | 10        | 4         | No. microns | 9500      | 19000     | 25000     | 37500     | 50000     | 75000     | microns   |
| Reach 7 | R7-197-C | R7-197-C-Z1a  | 06/28/10    | 0-0.5             | 30.9      | 74.1      | 79.4      | 86.1      | 93        | 96.8      | 98.7      | 99.5      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-197-C | R7-197-C-Comp | 06/28/10    | 0-1.2             | 30.7      | 66.5      | 71.4      | 78.2      | 86.1      | 93.5      | 97.7      | 99.1      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-197-C | R7-197-CR     | 06/28/10    | 0-1.2             | 35.7      | 69        | 73.6      | 80.2      | 86.8      | 92.6      | 96.6      | 99        | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-198-C | R7-198-C-Z1a  | 06/28/10    | 0-0.5             | 22.9      | 55.2      | 66.4      | 80.4      | 90.2      | 95.5      | 98.3      | 99.5      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-198-C | R7-198-C-Comp | 06/28/10    | 0-0.9             | 28.4      | 60.2      | 70        | 81.5      | 89.5      | 94.2      | 96.6      | 98.3      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-199-C | R7-199-C-Z1a  | 06/28/10    | 0-0.5             | 41.9      | 63.6      | 68.6      | 76.2      | 85        | 92.2      | 92.8      | 96.9      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-199-C | R7-199-C-Comp | 06/28/10    | 0-1.5             | 27        | 49.8      | 55.7      | 66        | 77.9      | 85.4      | 90.4      | 95.3      | 98.6        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-200-C | R7-200-C-Z1a  | 06/28/10    | 0-0.5             | 23.5      | 61.1      | 71.6      | 85        | 94.1      | 99.1      | 99.4      | 99.7      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-200-C | R7-200-C-Comp | 06/28/10    | 0-3               | 15.5      | 34.6      | 41.6      | 54.5      | 71.2      | 83.7      | 89.8      | 95.2      | 98.6        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-201-T | R7-201-T-Z1a  | 06/25/10    | 0-0.5             | 89.3      | 95.1      | 96        | 97.2      | 98.2      | 99        | 99.3      | 100       | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-201-T | R7-201-T-Comp | 06/25/10    | 0-1.1             | 52.4      | 58.4      | 60.2      | 63.5      | 67.1      | 70.5      | 74.8      | 82.7      | 100         | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-202-T | R7-202-T-Z1a  | 06/29/10    | 0-0.5             | 84.9      | 90.2      | 91.4      | 92.9      | 94        | 94.8      | 95.2      | 97        | 98.6        | 99.8      | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-202-T | R7-202-T-Comp | 06/29/10    | 0-0.9             | 65        | 73.9      | 76.9      | 81.5      | 84.4      | 86.7      | 88.7      | 92.6      | 94.8        | 99.8      | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-203-T | R7-203-T-Z1a  | 06/29/10    | 0-0.5             | 53.7      | 66.9      | 70.8      | 79.4      | 92.4      | 97.7      | 98.9      | 99.7      | 99.8        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-203-T | R7-203-T-Comp | 06/29/10    | 0-0.7             | 52        | 61.5      | 64.3      | 71.3      | 84.1      | 90.9      | 93        | 95.5      | 98.2        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-204-T | R7-204-T-Z1a  | 06/29/10    | 0-0.3             | 40.3      | 56.4      | 60        | 66.4      | 74.4      | 80.1      | 83.2      | 87.7      | 92.7        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-205-T | R7-205-T-Z1a  | 06/29/10    | 0-0.5             | 51        | 62.6      | 65.9      | 73.5      | 86        | 94        | 97.6      | 98.7      | 99.8        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |
|         | R7-205-T | R7-205-T-Comp | 06/29/10    | 0-0.8             | 41.6      | 53.3      | 56.9      | 65.5      | 80.4      | 90.4      | 96        | 99.5      | 99.8        | 100       | 100       | 100       | 100       | 100       | 100       | 100       |

Key:

- C = Hand-core creek location/sample.
- Comp = Hand-core creek composite sample.
- CR = Duplicate hand-core creek sample.
- ft = Feet.
- P = Ponar creek location/sample.

- T = Tributary location/sample.
- V = Vibracore creek location/sample.
- VR = Vibracore creek duplicate sample.
- Z = Sample depth interval consecutively numbered.

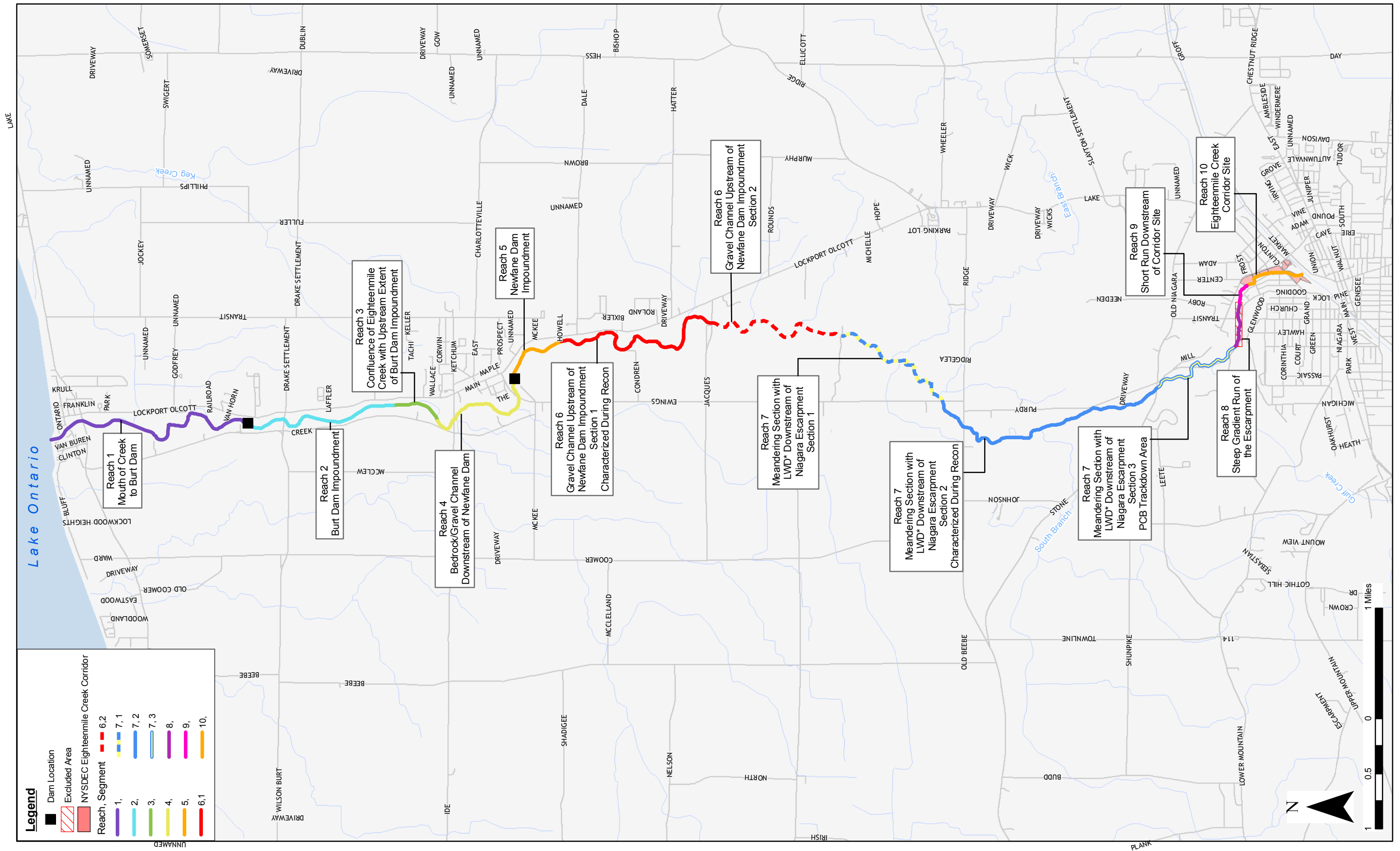


## Figures

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Figure 1-1 Eighteenmile Creek AOC Location Map





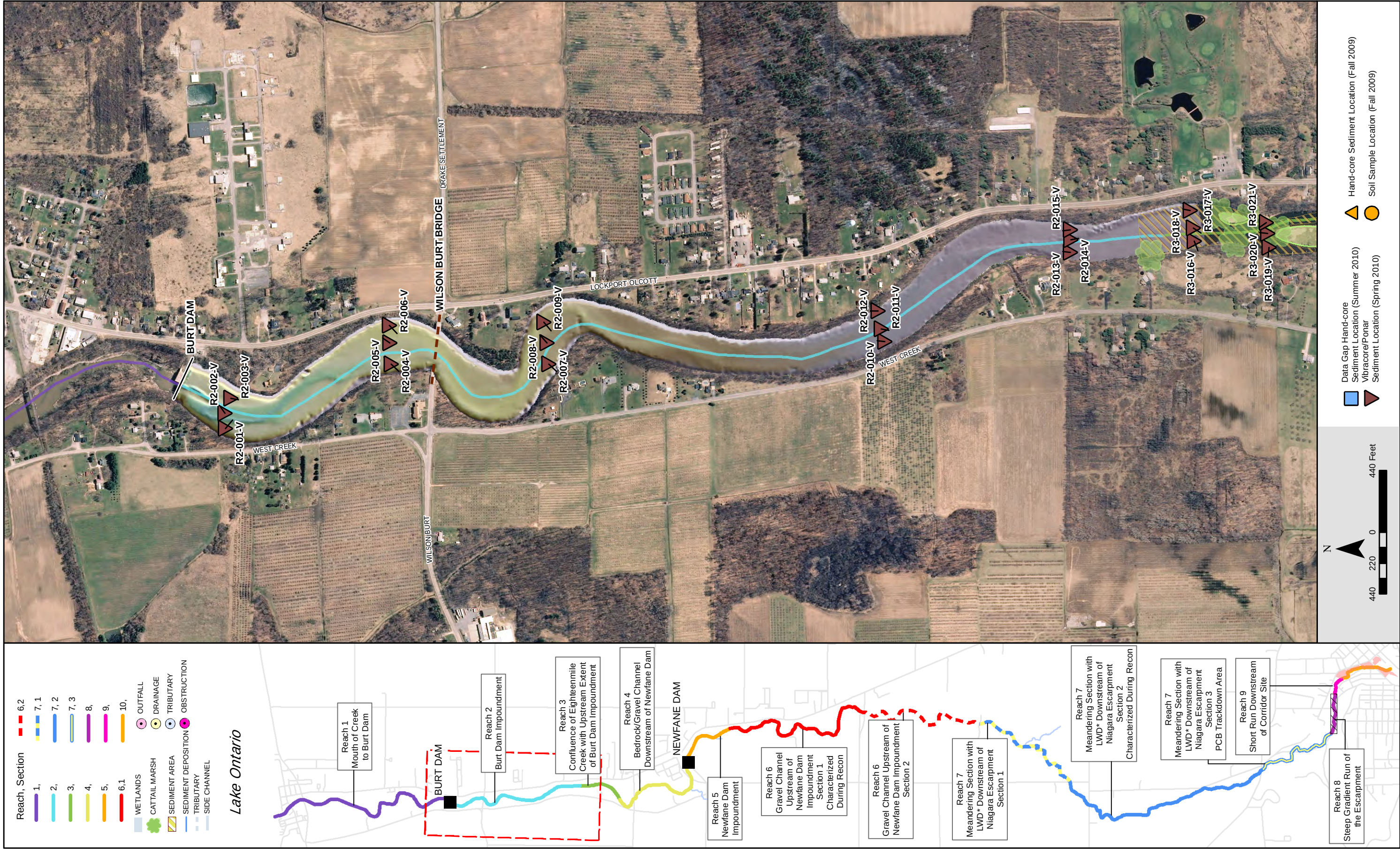


Figure 2-1 Sampling Locations in Eighteenmile Creek Reach 2



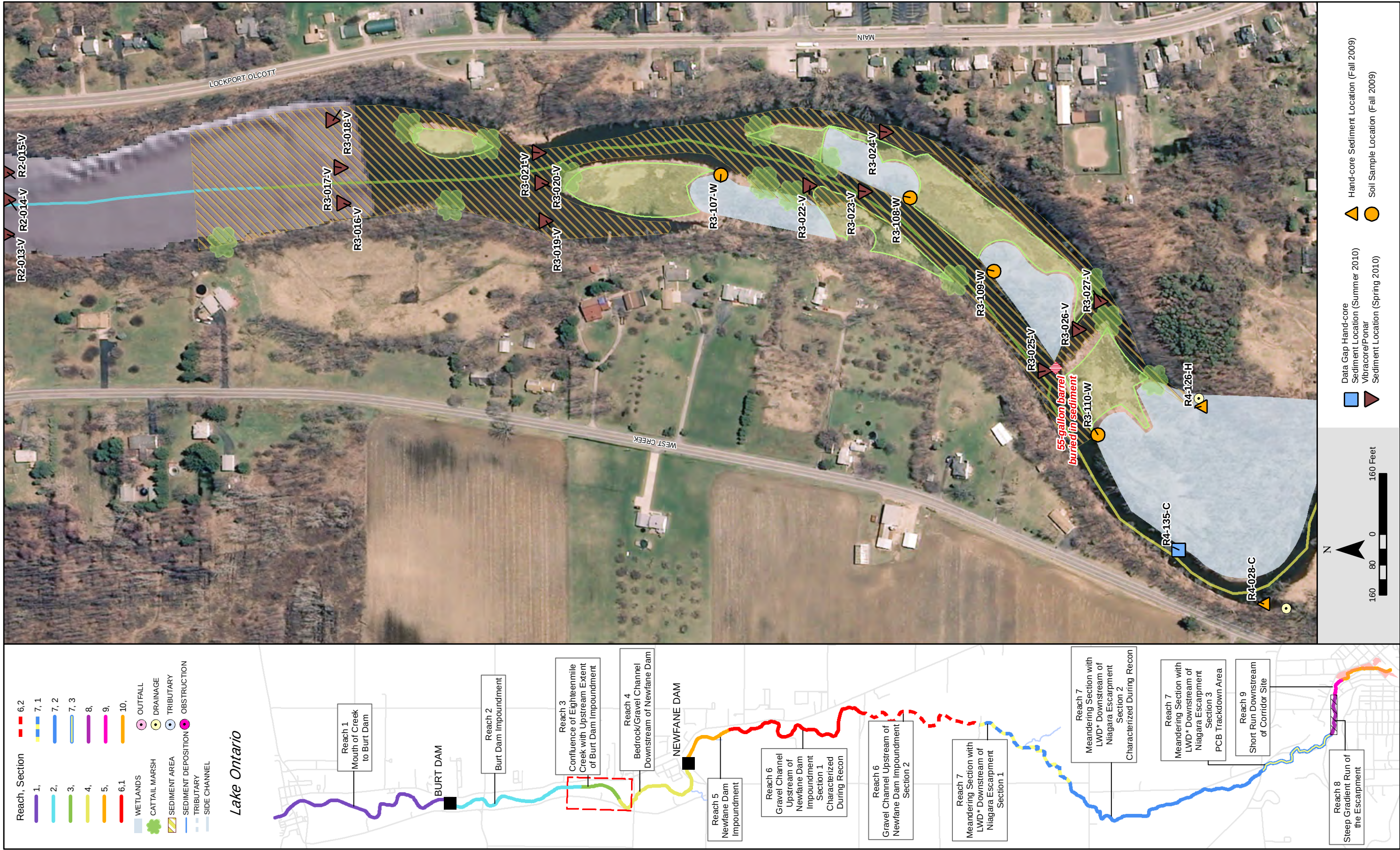


Figure 2-2 Sampling Locations in Eighteenmile Creek Reach 3



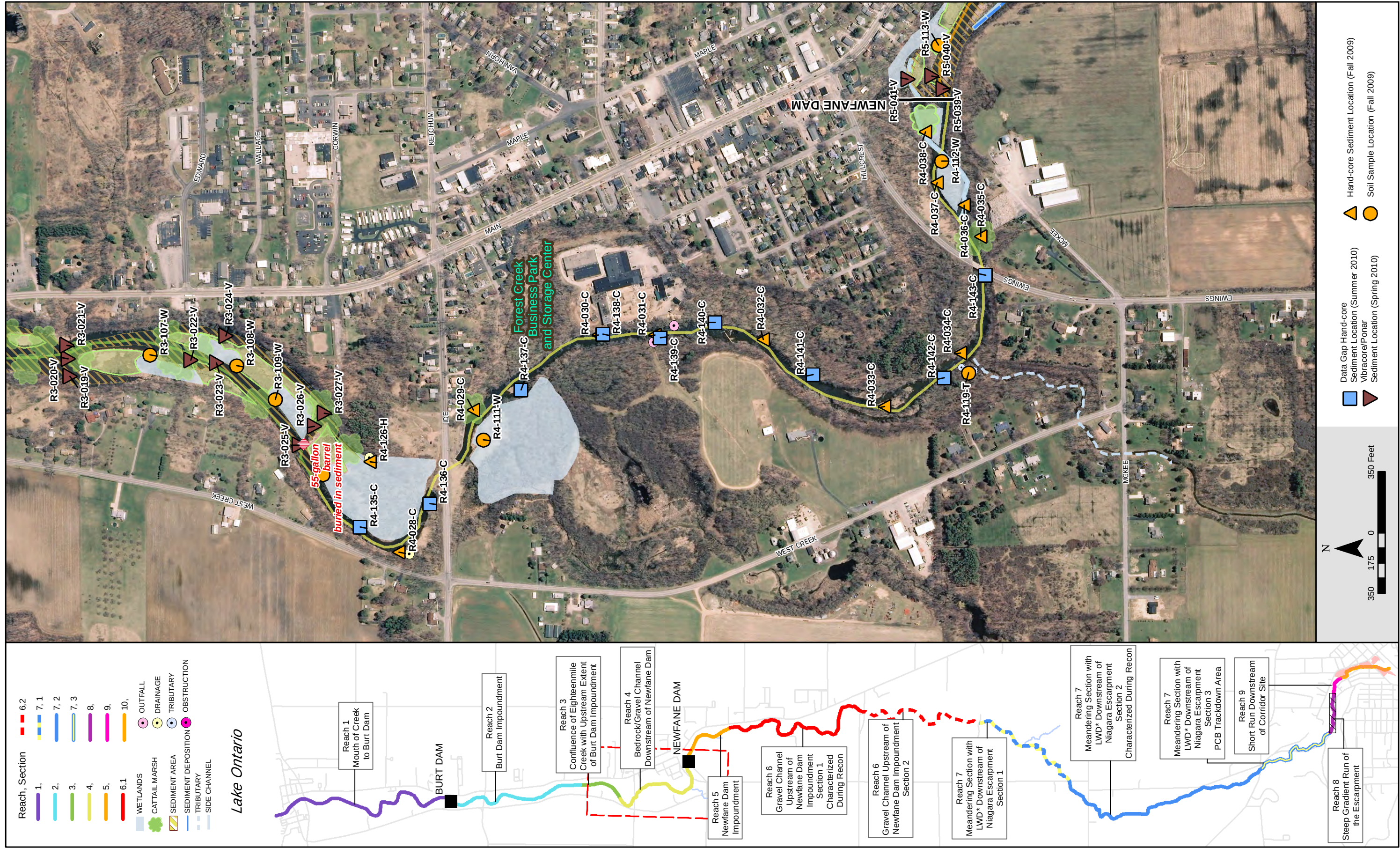


Figure 2-3 Sampling Locations in Eighteenmile Creek Reach 4



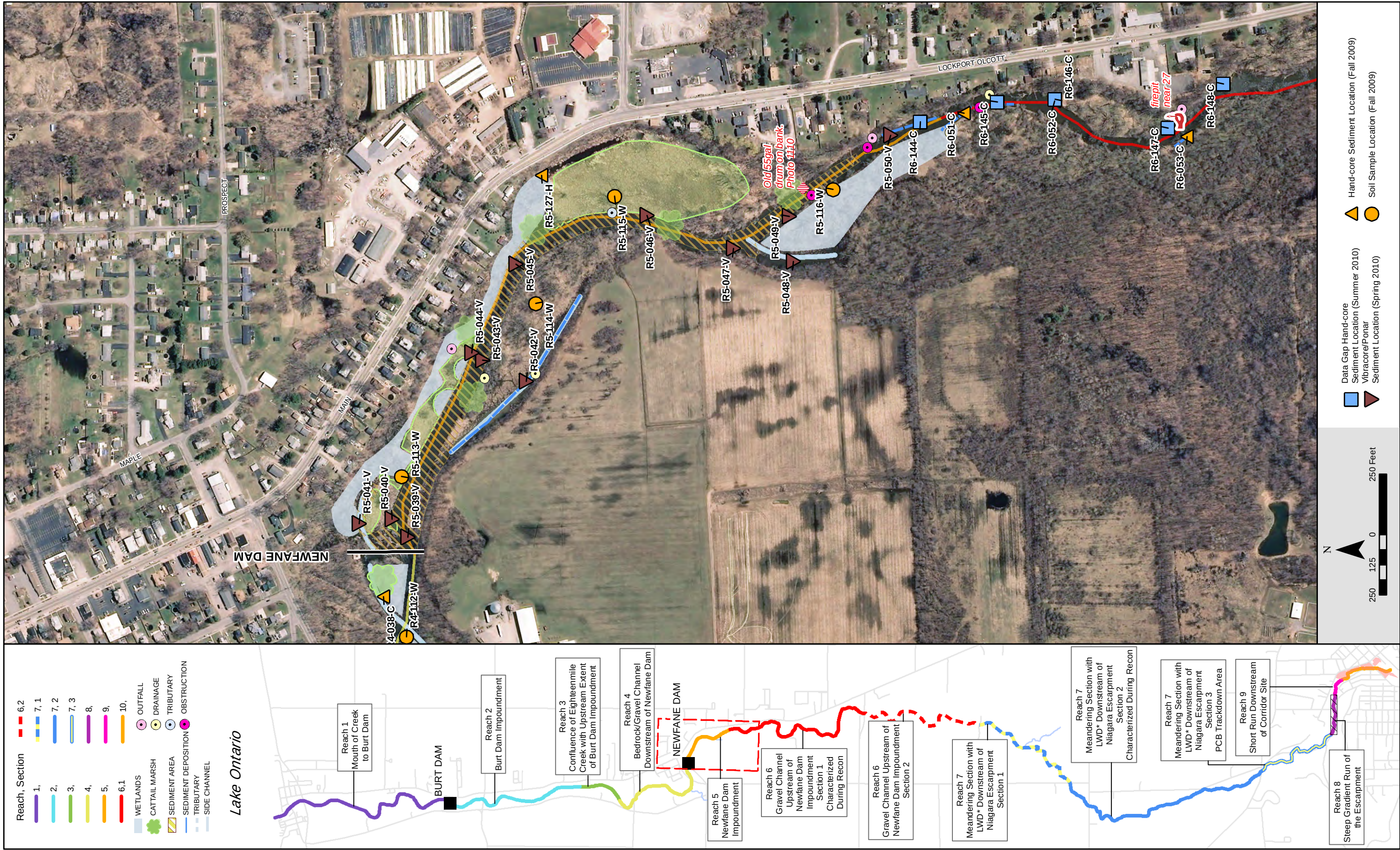


Figure 2-4 Sampling Locations in Eighteenmile Creek Reach 5



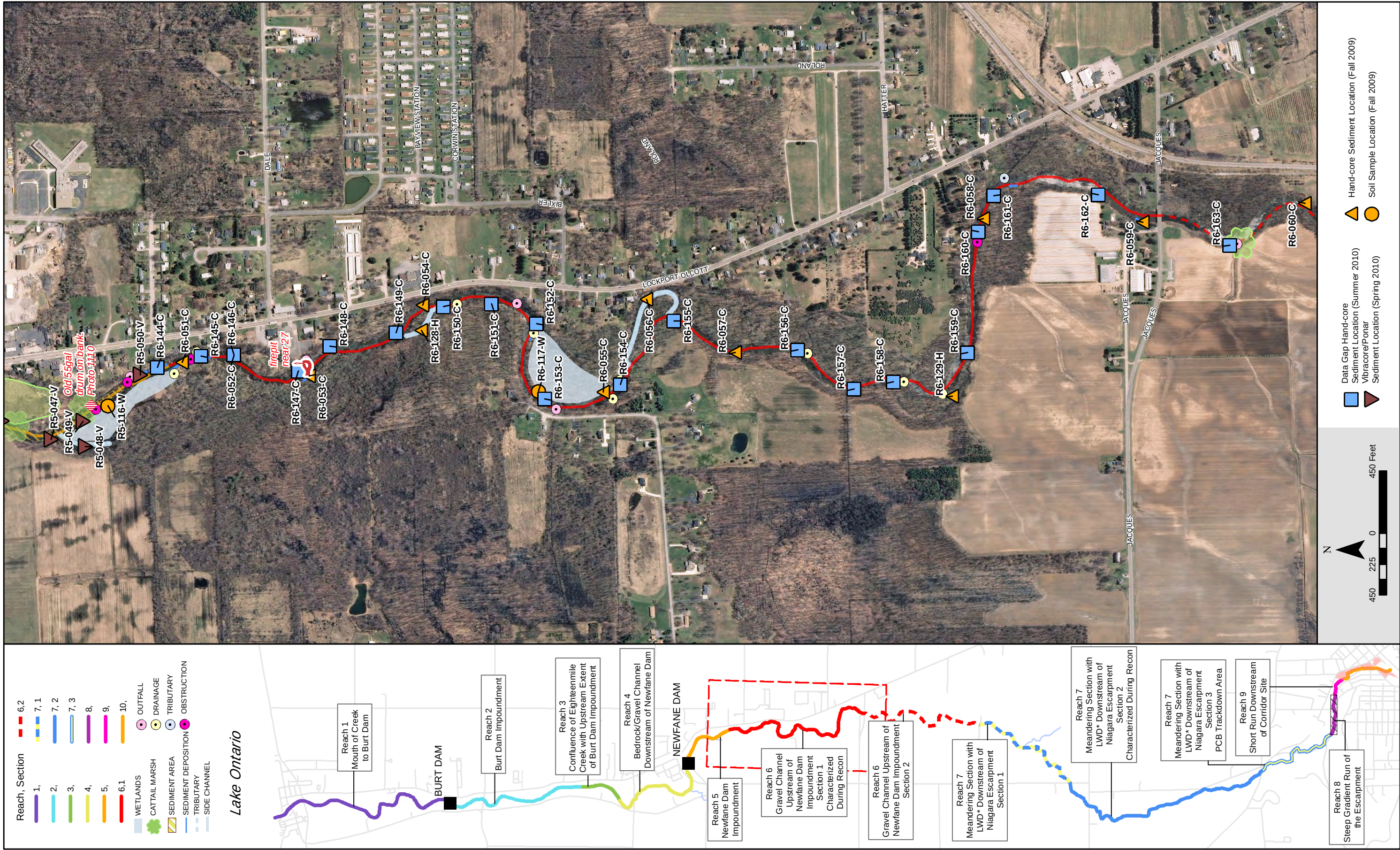


Figure 2-5a Sampling Locations in Eighteenmile Creek Reach 6, Section 1



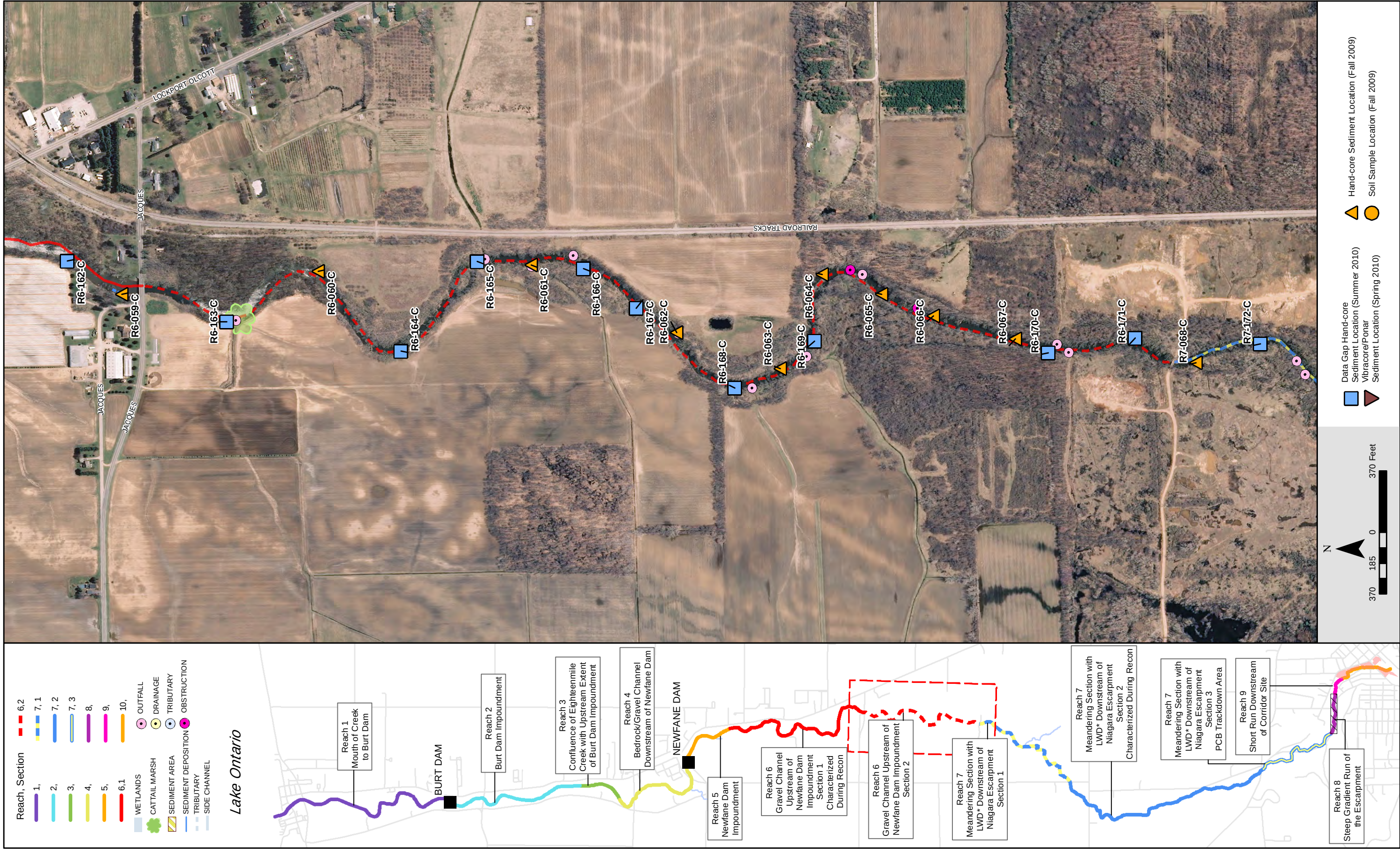


Figure 2-5b Sampling Locations in Eighteenmile Creek Reach 6, Section 2



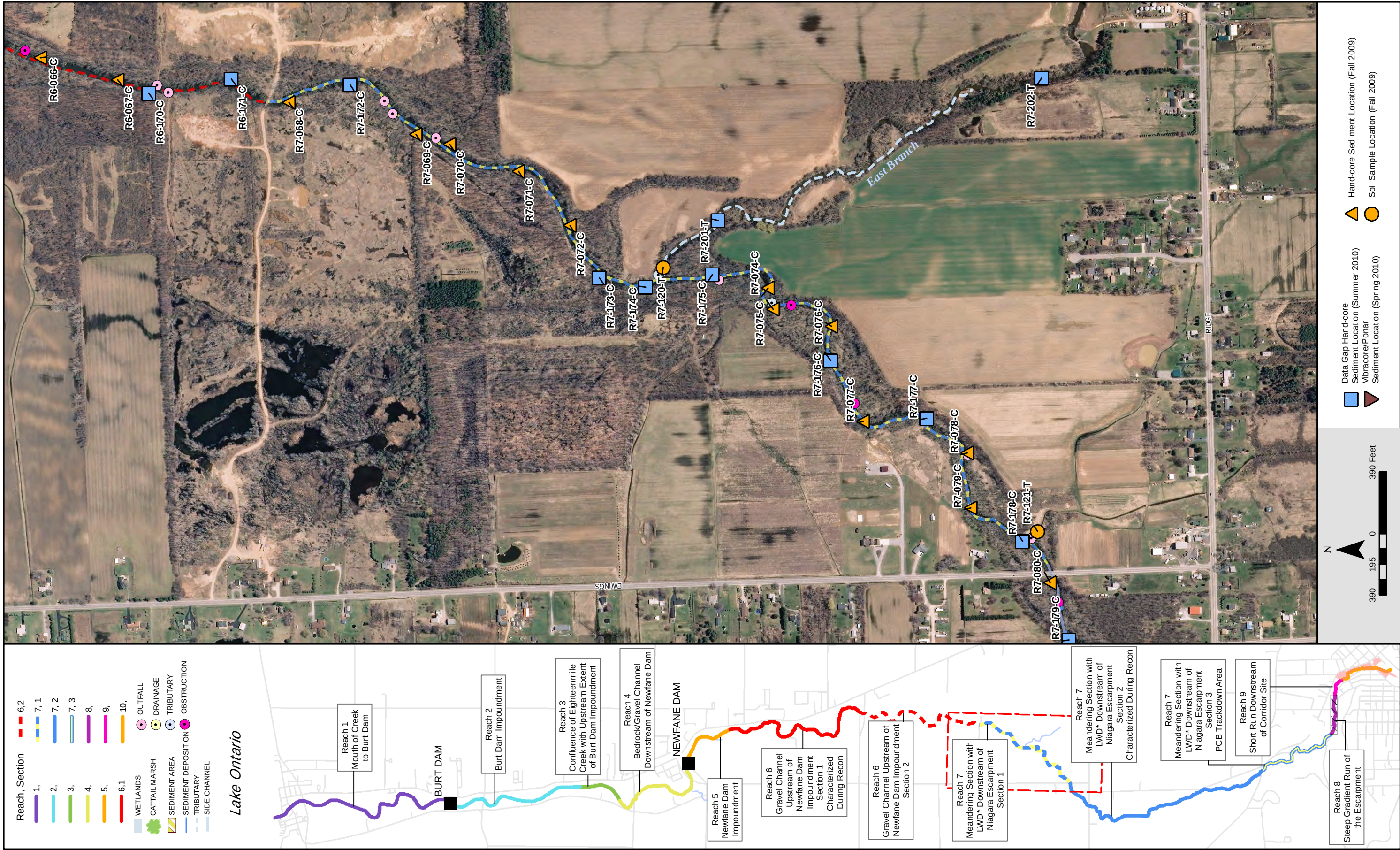


Figure 2-6a Sampling Locations in Eighteenmile Creek Reach 7, Section 1



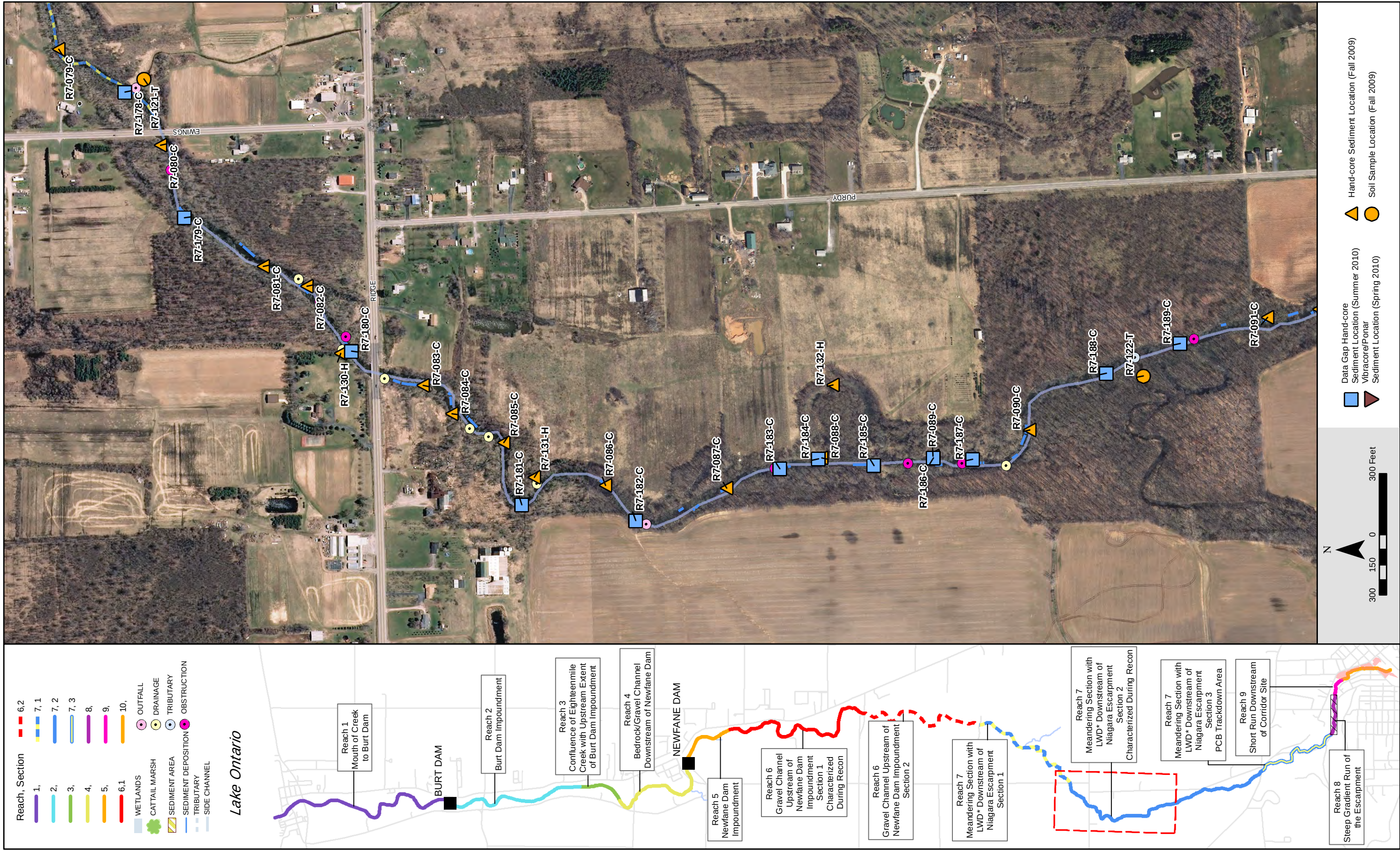


Figure 2-6b Sampling Locations in Eighteenmile Creek Reach 7, Section 2, Part 1



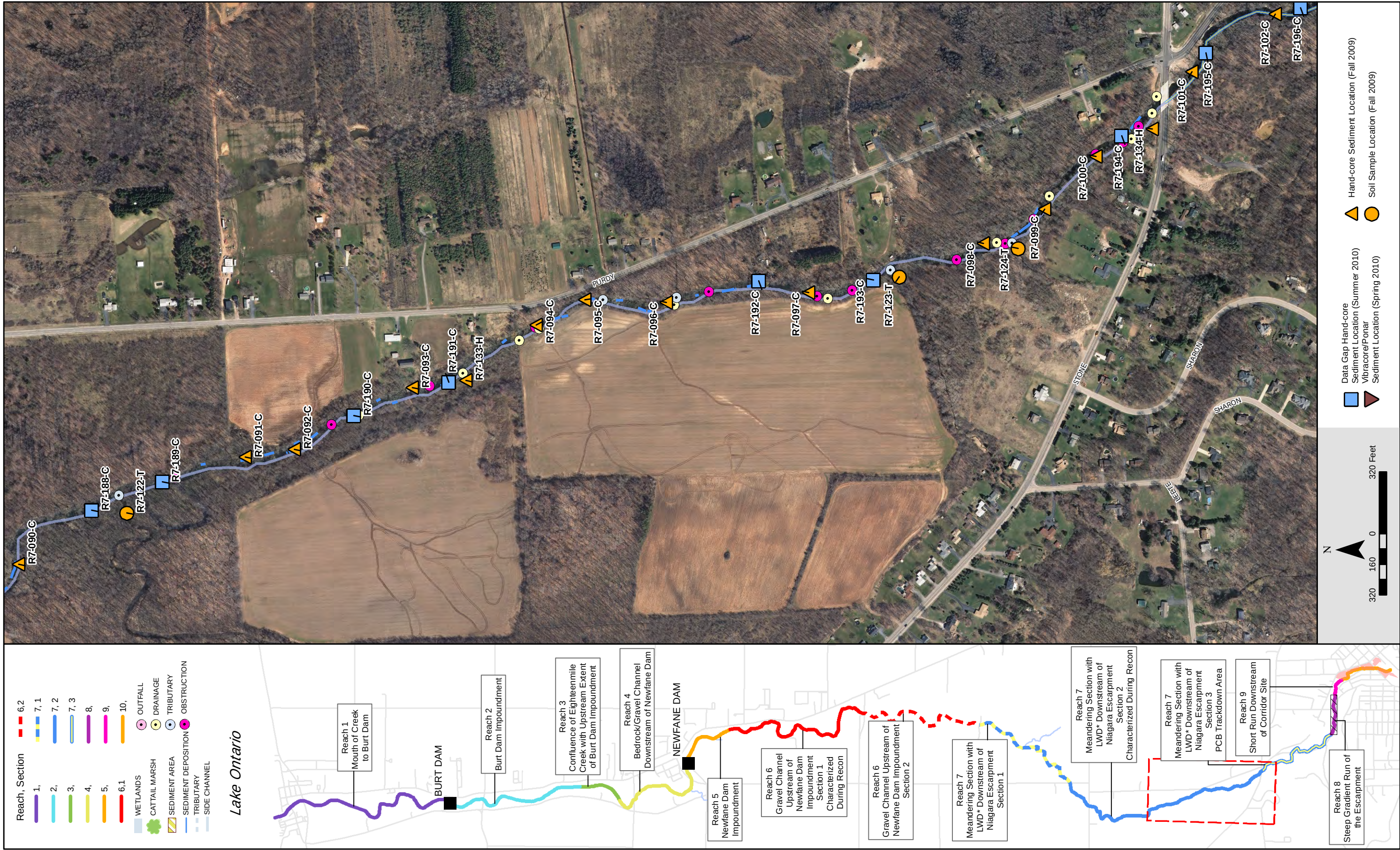


Figure 2-6c Sampling Locations in Eighteenmile Creek Reach 7, Section 2, Part 2



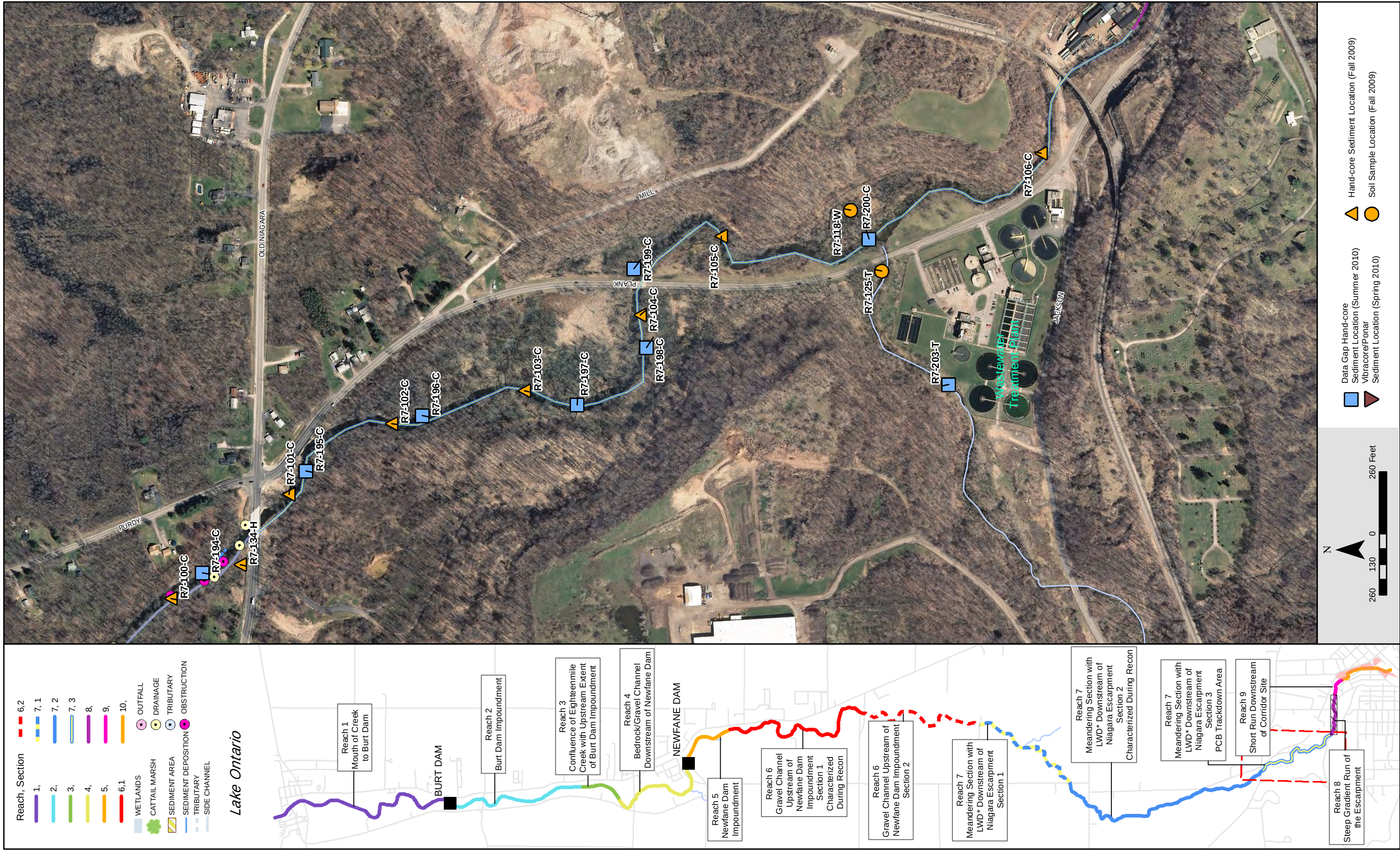


Figure 2-6d Sampling Locations in Eighteenmile Creek Reach 7, Section 3



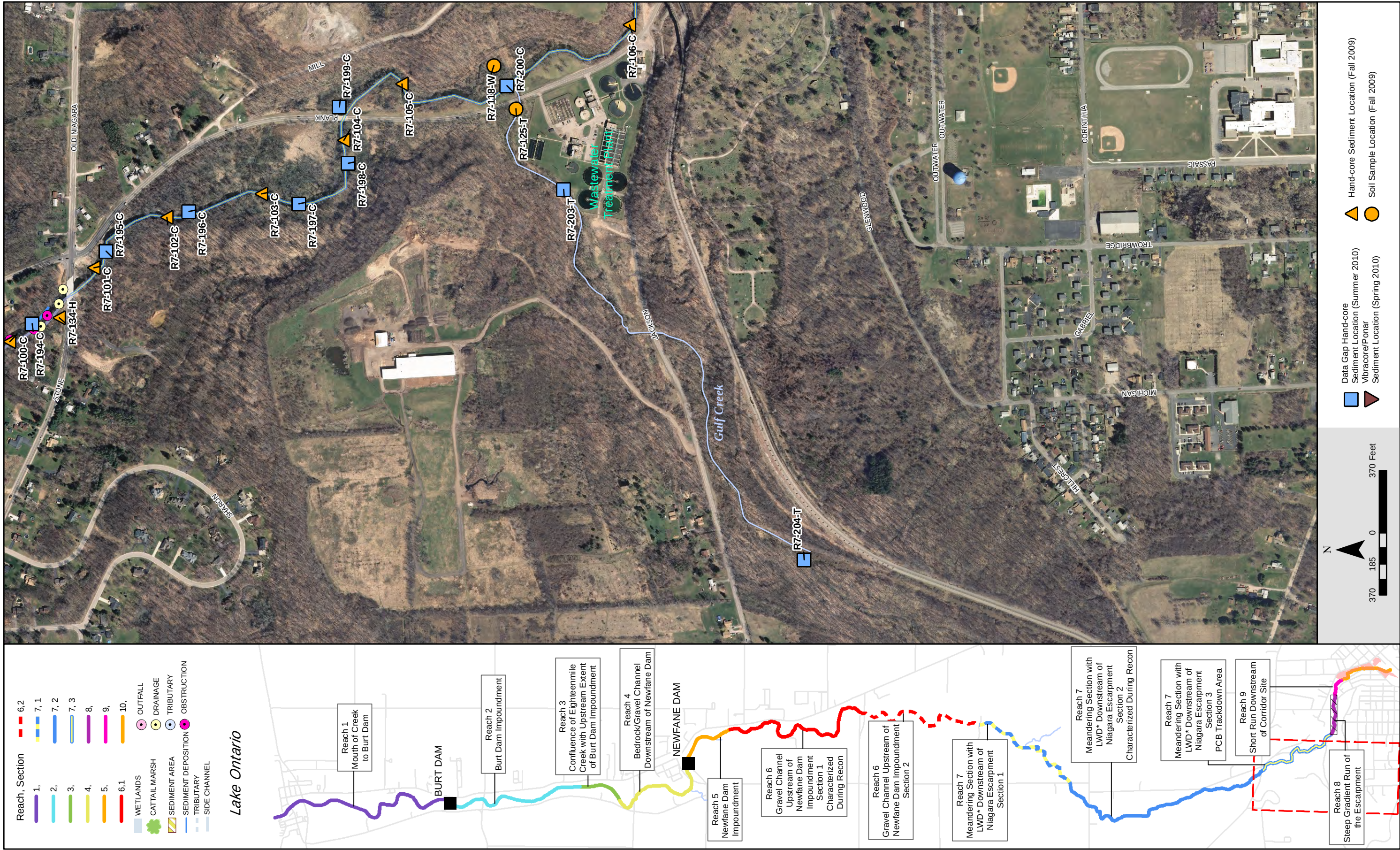


Figure 2-7 Sampling Locations in Gulf Creek



## **Appendix A**

### **Core Logs**

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The geology of each core was logged on a core log during the sample collection process. Copies of these core logs are presented here.

During the logging process, the field geologists used the Unified Soil Classification System (USCS) code to assign a classification to each matrix encountered. These classifications were assigned based on the observed textures. Note that geotechnical data reports for the sediment samples selected for geotechnical analysis also report a USCS classification. Most of the field and laboratory classifications agree; instances of disagreement, however, do occur, chiefly as a result of a matrix being a blend of two particle size groups having similar texture discernable to the human eye and through touch. In some instances the field geologists sometimes classified a sediment matrix based on what was considered the dominant particle size, while the laboratory analysis proved another particle size to be dominant. For all sediments, the laboratory's USCS soil classification designation should be used, if available, regardless of whether or not it agrees with the field designation.

## **November / December 2009 Hand-coring Core Logs**



## **May 2010 Vibracoring Core Logs**

## **July / June 2010 Hand-coring Core Logs**

## **Appendix B**

# **Daily Summary Forms and Field Audit Form**

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This appendix contains copies of the daily summary forms prepared by the field team leader at the end of each field day. Additionally, the field audit forms are included at the end of this Appendix.

**November / December 2009 Hand-coring Daily Summary Forms**

**May 2010 Vibracoring Daily Summary Forms**

**July / June 2010 Hand-coring Daily Summary Forms**

**November 2010 Sediment thickness and Bankfull Survey Daily  
Summary Forms**

## **Appendix C**

# **Photographs**

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Photographs of the cores, sampling locations, and sampling techniques are presented by reach in the attached compact disk (CD). Additionally, photographs taken during the October 2009 supplemental reconnaissance survey are included in this CD.



## **Appendix D**

### **GPS Forms**

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A Data Checklist and Metadata Recording Form was prepared for each GPS unit used for this project. Additionally, a Daily GPS Form was completed every day for each unit every day. These forms are presented in this Appendix.

## **Appendix E**

# **Data Usability Summary Reports**

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Chemical data from sediment analysis were reviewed for completeness and quality. The findings of this quality control review are presented in the Data Usability Summary Reports presented in this appendix folder. Data from November/December 2009 hand-coring analysis by USEPA CLP was validated by another USEPA contractor and the validated data was provided electronically. Data validation reports for these samples are not included in this appendix.

Electronic data contract compliance screening was performed on all USEPA CLP data. The associated review summary tables are not included in this appendix.

## Appendix F

### Electronic Data Files

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The Equis® database used to track all project analytical and locational data is included in the Appendix F CD. In addition, the GPS data files are included herein. The Equis database included coordinates in both the NAD 1983 UTM Zone 18N coordinate system and the WGS84 a global coordinate system.

Total Calculations for the PCB (Aroclors) were performed assuming a value of zero for Aroclors that were not detected in the sample. The values were summed per individual sample and reported as a value with two significant figures to maintain laboratory accuracy.

Total calculations for the PAHs were performed using  $\frac{1}{2}$  the value of the Reporting Limit for compounds that were not detected for all of the 16 TCL compounds. The values were summed per individual sample and reported as a value with two significant figures to maintain laboratory accuracy.

## **Appendix G**

# **Analytical Data Reports**

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This appendix contains the laboratory analytical reports generated from all chemical analyses conducted under this project under subcontract to CH2M HILL. The primary analysis includes geotechnical and AVS/SEM sample results. Each report contains the data from one sample delivery group (SDG). Table G-1 summarizes the samples included in each SDG.

Analytical reports provided by the USEPA CLP program are not included in this appendix.